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DETERMINATION OF ATTITUDES OF EMPLOYEES AND MANAGEMENT OF CANADIAN CORPORATIONS TOWARD COMPANY SPONSORED PHYSICAL ACTIVITY FACILITIES AND PROGRAMS

by

© ROBERT STEWART WANZEL

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled Determination of Attitudes of Employees and Management of Canadian Corporations Toward Company Sponsored Physical Activity Facilities and Programs, submitted by Robert Stewart Wanzel in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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ABSTRACT

The purpose of this study was to analyze the attitudes of "white-collar" employees, involved in varying types of occupations in major Canadian business centers, toward participation in a supervised recreation and fitness program.

In addition, the concept of having a fitness facility contained within an office structure and available to the company employees was explored.

A number of research hypotheses were formulated which compared employee attitudes with numerous variables. A questionnaire which allowed for computer analysis was specifically designed for the study.

The total sample consisted of 1,213 "white-collar" employee respondents (747 males; 466 females) from twelve companies in the Canadian cities of: Vancouver (four companies), Calgary (three companies), Winnipeg (two companies), Toronto (one company), Ottawa (one company), and Montreal (one company). There were 886 respondents living in Western Canada and 327 living in Eastern Canada.

As well, personal interviews were conducted with Canadian and American executives in comparable positions in order to provide insight into development and implementation of corporate fitness facilities in both countries.

Within the limitations of this study, the following conclusions have been made. Canadian "white-collar" employees are indeed interested in participating in some form of a physical activity program. The

employees accepted the concepts of activity facilities and programs to a large extent whether they were presently involved in activity or not.

Many respondents felt that a company should provide some form of a physical activity program. Company morale was perceived to be increased if employees were to have a facility for physical activity. Employee satisfaction or dissatisfaction with their job did not have a bearing on their agreement with the concepts of fitness facilities and programs. A definite possibility exists that physical activity programs could be offered throughout the working day without adversely affecting productivity.

The type of company but not company size was found to have a bearing on the extent to which the concepts of activity facilities and programs were accepted.

Employee attitudes toward participation did not vary to a large extent from Eastern to Western Canadians. However, some of the cities were more in agreement with the concepts than others.

Office personnel and executives did not differ in their attitudes as most were in agreement with the concepts.

Sex did not have a bearing on acceptance of concepts but age did. Family involvement through the use of company facilities was recognized to be worthwhile but not to an overwhelming extent.

In terms of a workable distribution load for period of the day and days of the week, it would seem to be extremely feasible to operate a physical activity facility and program. The employees would be willing to monetarily support such a facility. The most preferred

facility was a gymnasium followed by a pool and then courts. The employees would still be willing to participate if only a gymnasium was provided.

Attitudes of the respondents revealed a definite inclination toward acceptance of a compulsory program of physical activity if presented in a professional manner.

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CHAPTER I

INTRODUCTION

Many industrialized civilizations, such as the Japanese, British, European and North American, have made rapid technological advancement in a relatively short time span. The ramifications of such advancement may be observed in nearly every aspect of societal life. People, if they so choose, need not leave their homes to do their laundry, or watch a movie. They do not have to wash dishes, they can leave from home in the morning, return at night and find a thoroughly cooked, full course meal waiting in the oven. There are many other conveniences, too numerous to mention, all of which are attainable through time payments. All of these labour-saving developments have contributed to a society that has become sedentary in nature (Staley, 1962:3). Thomas Cureton Jr. (1965:23), referring to this problem, stated:

> Modern society is steadily drifting away from the habit of hard work. In an age when man's ability to think is far more valuable than his capacity for physical work, more and more people spend their working hours in a sedentary position. The tasks of daily living are being made steadily easier by an increasing flood of new and ingenious appliances. Thanks to the multiplicity of machines, much of our leisure time is spent in a relaxed position.

These conveniences, while having relieved numerous hardships, have led to the intensification of many other problems for the industrialized society. Cardiovascular disease, emotional stress, boring occupations, ineffective use of leisure time, and poor physical condition in general are but a few problems.

Fox and Skinner (1964:731-46) reported: "Concurrent with a reduction in the requirements for physical activity in modern living there has been an increase in death and disability from cardiovascular diseases...". Similarly, Campbell (1969:266) stated that:

> Psychologists and psychiatrists have established that tensions, conflict, and emotional strains are concomitants of a complex civilization that can and do cause a number of physical ailments such as hypertension, cardiac troubles, and ulcers.

Others, (Eastwood, 1946), (Kilbom, 1969), (Gottheiner, 1968), (DeCarlo, 1968), have made reference to the various problems mentioned earlier.

The aforementioned problems have contributed to the development of numerous forms of physical and recreational activity outlets. Some examples of these outlets are country clubs (Marcel, 1964), health spas and "pay as you play" facilities. The use of these facilities is designed to make profits, consequently the membership cost is substantial and only a certain segment of the population are able to afford the use of such establishments.

Other interested persons can make use of alternate establishments, such as city owned swimming pools, arenas and tennis courts or various programs operated by the Y.M.C.A. or city recreation departments. The cost is not prohibitive but inherent problems do arise. One such problem is that children tend to make use of these facilities and programs to a greater extent than do adults. Adult participation is not extensive because programs are normally operated during evenings or weekends. The more expensive facilities face the same adult time problem but combat it to some extent by providing plush surroundings which develop the aura that it is "the place to be" (Marcel, 1964). Both types of

establishments face an additional problem with their inaccessability since many of their members must travel varying distances and by varying means to reach the facility. This fact tends to reduce the participation of the people who most need the exercise. T.G. Klumpp, M.D. (1967:77) supported the foregoing when he stated:

> For the great majority of us, the most wholesome release of tensions is obtained through a regular program of physical exercise. Unfortunately, in the sprawling development of our urban civilization, recreational and exercise facilities have not been built to keep pace with the multiplication of apartments, stores and office buildings. It is, therefore, not easy to find conveniently located facilities.

A case in point might be a Y.M.C.A. often located relatively close to major business complexes. People who work in such complexes, for the most part, have sedentary type occupations and are in need of some form of exercise.

Joining a noon hour exercise program requires travelling to and from the Y.M.C.A., creating possible difficulties. For example, agreeable weather poses no problem except walking time whereas inclement weather may force usage of a car and therefore the preliminary task of commuting to and from the recreational facility may require a significant portion of the participants' lunch hour due to the complexities of urban parking. Also, additional preparatory time consumption occurs at the facility due to the active nature of an exercise program. This somewhat hectic routine may cause the person who needs the benefits of physical activity to discontinue his participation. The person might still leave the building during the lunch hour, but more likely in order to attend a businessmen's luncheon, have a drink and be

entertained. In connection with this, H.J. Johnson, M.D. (1961:43), President, Life Extension Examiners, reported: "The doctors note that a drink gives you a quick boost in the restaurant but then leaves you with a letdown during the important afternoon office hours." T.K. Cureton (1965:62) referred to this: "Many people who exercise during lunch hours report that they work more efficiently during the afternoon. And because of the time given over to exercise they eat lighter lunches - a habit that's all to the good." W.P. Shepard M.D. (1961:120) said: "The dietary habits of some otherwise intelligent businessmen often astound me, especially the businessmen's lunch," and he was supported by K.C. Hutchin, M.D. (1966:92): "Many a man spends his entire lunch time each day continuing his high pressure life by doing business coupled with overeating."

What can be done to solve all of these problems and increase participation? A solution may lie in the implementation of a recreation and fitness program in a facility that is located within an office complex. Thus, leaving the building to participate in such a program would no longer be required. This appears to be a plausible solution according to Teraslinna et. al. (1969:227): "The discriminant analysis showed that men more willing to participate in the offered physical activities lived nearer the gymnasium...". The facility and program would be basically operated as an employee benefit, however, the employee may be asked to contribute a small fee, certainly less than he would pay to a private club (Marcel, 1964).

Greater participation might occur if the employees could use the facilities during their office hours. Indications are that this would

have a positive effect on productivity and morale and decrease absenteeism and fatigue.

Jackson M. Anderson (1955:7) stated: "Employee recreation builds morale, increases worker efficiency, and reduces employee turnover and absenteeism." An article in Personnel Journal (1963:520)* explained:

> In dollars and cents terms, industrial leaders extol recreation as an important and even an economical way to increase productivity, reduce turnover, lessen absenteeism, recruit new top-notch personnel, and retain trained employees.

Others, (Lobsenz, 1962), (Neer, 1969), (Miller, 1963), (Gutin, 1966), have indicated that favourable results in these areas would greatly benefit the employer.

STATEMENT OF THE PROBLEM

A pilot study previously completed indicated substantial employee interest in a program and facility of the kind described in the foregoing (Wanzel, 1971).

The purpose of this study was to analyze the attitudes of "white-collar" employees, involved in varying types of occupations in major Canadian business centers, toward participation in a supervised recreation and fitness program.

The feasibility of the concept of having a fitness facility contained within an office structure and available to the company employees was determined.

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*Referenced under "As You Were Saying."

HYPOTHESES

In order to analyze the attitude survey data a number of research hypotheses were formulated. Certain hypotheses were related to a consensus (see hypotheses 1-13 inclusive, pages 6, 7). Other hypotheses related to location of cities (hypotheses 14 and 15), company type (hypothesis 16), occupational position (hypothesis 17), company size (hypothesis 18), sex (hypothesis 19) and age (hypothesis 20).

The sample consisted of six Canadian cities: Vancouver, Calgary, Winnipeg, Montreal, Ottawa and Toronto and six distinct company types were identified: Insurance, Petroleum, Manufacturing, Public Utilities, Government and private. Occupational positions considered to have managerial responsibilities were those of department managers, branch managers, regional managers or high company executives as opposed to office personnel. Company size categories were based on employee population: up to 200 (1), 201-800 (2) and 801-1,200 and over (3). Responses to the attitude survey were analyzed for similarities and differences between males and females. Four age categories were devised: 15-25 (1), 26-35 (2), 36-45 (3) and 46 and over (4).

The following research hypotheses are presented:

1. That Canadian white-collar employees will be interested in participating in a compulsory recreation and fitness program (Wanzel, 1971).
2. That employees will be interested in participating in some form of physical activity.
3. That employees will be willing to monetarily support a facility

contained within an office structure (Wanzel, 1971).

4. That employees wish to have their families involved in various recreation programs through the use of company facilities (Wanzel, 1971).
5. That there exists a workable distribution load in regard to period of the day for the operation of the proposed facility (Wanzel, 1971).
6. That there exists a workable distribution load in regard to days of the week for the operation of the proposed facility (Wanzel, 1971).
7. That the employees' attitudes will not vary according to satisfaction or dissatisfaction with their job.
8. That the attitudes of the employees presently involved in some form of physical activity will not differ from those employees not presently involved in some form of physical activity.
9. That the employees will feel that a company should provide some form of a physical activity program (Wanzel, 1971).
10. That the employees will feel that a physical recreation facility for company employees would improve company morale (Wanzel, 1971).
11. That the employees would prefer a gymnasium if only one facility could be provided.
12. That the employees will still participate in the program if only a gymnasium is provided (Wanzel, 1971).
13. That the employees will view one hour of their working day devoted to physical activity as not resulting in a decrease in their previous daily production (Wanzel, 1971).

14. That the attitudes of the Eastern Canadian employees will not differ from the attitudes of the Western Canadian employees.
15. That the attitudes of the employees will not vary according to the cities in which they reside.
16. That the attitudes of the employees will not vary according to the different types of companies.
17. That the attitudes of the office personnel toward physical activity facilities and programs will not differ from the attitudes of those who have managerial responsibilities.
18. That the attitudes of the employees will not vary according to the different employee population sizes.
19. That the attitudes of the employees toward physical activity facilities and programs will not vary significantly by sex (Wanzel, 1971).
20. That the attitudes of the employees will not vary by age (Wanzel, 1971).

LIMITATIONS

The following limitations are recognized:

1. It is extremely difficult to objectively measure the effect of a company recreation and fitness program on employee productivity, morale and absenteeism (Fleck, 1968).
2. The nature of the questionnaire may be construed as projecting a bias.

3. Many corporations were unwilling to have their employees complete the questionnaire because of a company policy.
4. It cannot be stated conclusively that a corporate recreation and fitness program will prevent cardiovascular problems occurring among participating employees.
5. A sampling error may occur due to the exclusion of some employees in the company employee lists provided.
6. The review of literature has not revealed any North American company presently operating a compulsory recreation and fitness program.
7. This study merely investigates one concept, that of a corporate recreation and fitness program, being a viable partial solution to the problem of sedentary occupations. Other possible concepts might include company acreages or resorts, or group membersnips in country clubs.paid by the company.

DELIMITATIONS

1. One thousand two hundred and thirteen questionnaires were completed and returned by white-collar employees of twelve ccmpanies situated in the Canadian cities of Vancouver, Calgary, Winnipeg, Toronto, Ottawa and Montreal.
2. The study was delimited to company employees who work in a company's major office building rather than at some other company location.
3. There was no delimitation as to sex, age or social class.

JUSTIFICATION OF THE STUDY

Canadian city business complexes are growing at a rapid pace as are the cities themselves (Chase, 1971:202-3), (Irwin, 1967). A greater number of people are residing in suburbs which may be a considerable distance from their place of work. These factors combine to reduce the amount of leisure time available to people who work in downtown business offices due to the significant amount of time involved in commuting (Heckscher and Degrazia, 1959:37). As a result, people are becoming unwilling to travel even short distances, especially in our Canadian winter climate, to participate in recreation and fitness programs. Brunner (1969:464) in a study on adult participation in physical activity stated: "Non-participants in vigorous physical activity stated that the primary reason for not participating regularly was the feeling of lack of time due to business reasons." Thus, lack of time is a recurrent problem which may be reduced by an easily accessible facility (Teraslinna et. al., 1969:227).

It seems evident that this lack of easily accessible facilities (Irwin, 1967), is one of the reasons for Canadians becoming progressively less fit and consequently more susceptible to cardiovascular diseases. The Canadian Heart Fund reported that heart attacks are the largest single cause of deaths in Canada, and the sedentary nature of man's work patterns may be considered as one factor in cardiovascular disease (Fox and Skinner, 1964:731-46), (Kilbom, 1969:315-23), (Raab, 1964:19), (Fleck, 1971). In addition, the ever increasing amount of stress that is placed on business executives may have a

causal relationship (Fleck, 1968). An excessive diet, in particular the "businessmen's daily luncheon," can lead to a great susceptibility to cardiovascular disease (Hutchin, 1966). Business organizations are constantly plagued by fatigue, boredom, lack of productivity anc morale, absenteeism and decreasing physical fitness which affect the health of the individual. These hazards of the contemporary work environment can prove costly to the employer and employee (Fleck, 1968), (Anderson, 1951).

Ryan (1947:23) stated: "The overhead of an industrial enterprise is definitely affected by turnover, accident rates, discontent and complaints."

It is presumed that management can counteract the deleterious effect of the work environment of their employees by introducing a supervised recreation and fitness program conducted in a facility located within the office complex. Potentially this type of facility could attract and subsequently retain more employee participants due to the accessability to the facility (Irwin, 1967), (Bryden, 1968). The employee can benefit greatly from such a program in terms of both physical and mental health (Chevrette, 1969:25), (DeCarlo, 1968:33), (Fox and Skinner, 1964:731-46), (Kilbom, 1969:315-23), (Wallin and Schendel, 1969:600). Management may also benefit by an increase in employee morale, and productivity, and a decrease in absenteeism and fatigue (Anderson, 1951), (Lobsenz, 1962), (Personnel Journal, 1963: 520), (Recreation Management, 1969:30)*. Management should view the program as added insurance against the loss of employees or top executives through any of the aforementioned factors which can lead to

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*Referenced under "Spotting Heart Attacks Beforehand."

cardiovascular disease (Fleck, 1968), (DeCarlo, 1968:33).

It is believed that a study of this particular nature had not been undertaken or reported in North America until the preliminary investigation preceding this study was completed. Results from the investigation indicated a favourable response toward implementation of corporate recreation and fitness facilities and programs. Canadian corporations are not initiating programs of this nature, perhaps due to a lack of information on the subject. It is assumed that this study can provide the guide lines for the development of company recreation and fitness facilities and programs for Canadian businesses. Thus, a more comprehensive analysis should be undertaken in various major Canadian cities.

It is believed that this study may lead to implementation of such facilities and programs into Canadian companies with a resultant increase in job opportunities for Physical Education and Recreation graduates. Neumeyer (1958:404), in a study of leisure and recreation stated: "Most of the recreation leaders thus far have come from the employee ranks; but as Industrial Recreation develops, professional trained leaders are being employed more and more."

DEFINITION OF TERMS

Industrial Recreation: the term used to describe those recreation activities which are provided to satisfy the particular needs and desires of employees of industrial plants.

Physical Activity Programs: the term used to describe those

physical activities which are provided within the company building to satisfy the particular needs and desires of employees of business firms.

Productivity: measured as output per unit of labour input.

Morale: prevailing mood and spirit conducive to willing and dependable performance, steady self-control and courageous, determined conduct.

Absenteeism: a reflection of effects upon health as well as boredom of the job.

Cardiovascular Problems: related to such things as hypertension, angina, and infarcts.

Sedentary Work Patterns: a kind of "mental" work in which control, timing, skill, direction of activities, and decision making are more important than muscular force.

Fatigue: the term refers to a large number of residual effects of work. That is, it refers to any inhibitory effects of sedentary or muscular activity which carry over to the period after work ceases, and also to effects which accumulate during a period of continuous work.

Workout: for the purpose of this study, the term workout is defined as a period of strenuous exercise.

White-Collar Employee: one not engaged in manual labour.

Fringe Benefits: advantages, other than pay, gained from a job.

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CHAPTER II

REVIEW OF LITERATURE

INTRODUCTION

Corporate physical activity, recreational fitness facilities and programs, operated within a company building are recent concepts in the evolution of company recreation programs. These concepts did not become fully developed until the mid 1960's. Therefore there appears to be a dearth of literature on these particular aspects of company recreation programs.

The review of the literature revealed that industrial recreation has played an important role in employer-employee relations for many companies around the world. The implementation of these programs has taken many forms which are outlined in this chapter.

A basic premise underlying this study is that an individualized fitness program undertaken by anyone is definitely a worthwhile endeavour in terms of health benefits. Evidence relating cardiovascular problems to sedentary life styles was examined to enhance this belief that physical activity has beneficial effects on alleviating various health problems.

It was recognized that companies are geared to the realization of profit. Therefore there was an examination of the benefits to the employer, as well as the employee, that can accrue through a physical activity and recreation program. However, it must be noted that these benefits were intangible and consequently were extremely difficult to

measure.

The three sections that follow focus on the plight of the sedentary office worker and the benefits that can be derived through use of company owned physical activity facilities and programs.

Historical

The historical investigation revealed that employee recreation programs have been a part of company life in the United States since the late 1800's. An article in The Annals of The American Academy of Political and Sociological Science (1957:79-82)* stated that:

> The earliest provision of recreation by an industry in the United States was that of The Peacedale Manufacturing Company of Peacedale, Rhode Island in 1854. With the turn of the century, activity in industrial recreation increased.

Anderson (1951:273) stated that:

> The Carnegie Steel Corporation established a company recreation center in 1912, and by 1920 had provided five centers, twelve athletic fields, and fifteen playgrounds, all well equipped. Also in 1920, The Goodyear Company of Akron, Ohio, had a seven storey building used entirely for recreational purposes.

This trend has continued in the United States. Now a variety of recreational programs are available for employees.

The space division of the North American Rockwell Corporation has its own recreation facilities and programs.

Personal correspondence with Mr. Jack Rector (1972), the administrator in charge of the recreation program, revealed the extent of their program. The Recreation Center, an eight acre site just a mile from Space Division headquarters, is a hub of leisure-time activities

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*Referenced under Douglas, Paul F.

for upwards of 500 employees every day.

> Tailored to meet a variety of recreational needs for employees and their families, the center has three modern buildings containing two fully equipped physical fitness rooms, a steam room, showers, lockers, a 300-seat auditorium, a large ballroom, six clubrooms, a conference room, a photography darkroom, rod and gun workshop, astronomy workshop, lapidary workshop and complete kitchen facilities.
>
> For the athletically inclined, the Center offers four windscreened tennis courts, a regulation softball diamond, volleyball and basketball courts and shuffleboard courts. Also available are picnic grounds and a children's playground.
>
> Use of the Recreation Center is free to all employees and their immediate dependents.

A swimming pool is also proposed for the Center. There are four full time employees and four part time employees staffing the Recreation Center facilities. The approximate cost of the program for 1972 is $180,000. The recreation facilities are used during the employee's lunch period and after work. Cardiovascular records are maintained for the executives participating in the physical fitness program.

North American Rockwell believes, "The cost of the program is warranted through improved employee morale."

The 3M Company in St. Paul, Minnesota has developed the "Tartan Park Recreation Area" (1971).

Mr. John Leslie, the manager of Industrial Recreation at Tartan Park, explained the company program through personal correspondence. The company supports commercial sports such as basketball, bowling, golf, hockey, rifle, softball, tennis, and skeet and trap shooting. As well, it operates intramural sports in the above in addition to touch football and handball.

Numerous hobby groups, sport clubs and musical activities have developed at Tartan Park. Other facilities include an extensive golf and ski area.

Another leader in the area of employee recreation is the Gates Rubber Company of Denver, Colorado (1972).

Their recreation activities program started in 1911. For the past twenty-five years, a full time Recreation Director has been engaged to promote and organize employee programs. Their new building was built in 1963 and combines under one roof the most modern health and treatment facilities in the area. It includes the services of fifty doctors, nurses and other specialists, plus a completely equipped gymnasium where executives of the company can exercise. The building is located across the street from the main office. Two thirds of all Gates executives use the facilities.

The gymnasium area also includes three squash courts, a large golf driving range, a sauna bath, steam room, massage area under the supervision of a licensed masseur, and many tables for reclining under a battery of sun lamps. All gym clothing is provided and laundered on the premises, and a complete line of toiletries and shaving needs is available for the members. The program is voluntary and used by the members during lunch or after work. The members are deducted five dollars a month from their payroll for use of the facilities.

The entire program at Gates is designed to maintain and improve general health, and reduce the incidence of heart attacks, strokes, kidney ailments, muscular distress and other health problems. The company attitude is reflected in the following statement:

> It is our firm belief that the members who take advantage of the facilities find they have more energy, less tension and a greater ability to carry their workloads without tiring. Since they are maintaining a better physical condition through regular exercise, they can be more efficient executives.

The families of the members are included in a variety of programs. Lobsenz (1962) stated that, "The Eastman Kodak Company plant includes a five storey recreation building which can accommodate seven thousand pleasure bent employees at one time."

James Moyer, the executive secretary of the Kodak Park Athletic Association (1971), which started in 1910, supplied pertinent information regarding their association. Each employee pays $1.00 per year for which the company provides office space and indoor and outdoor facilities. Upkeep of these facilities plus the salaries of all administrative personnel (executive secretary and twenty staff people) are paid for by the company.

The recreation center contains an auditorium seating 2,424 persons, a gymnasium, a twenty-lane bowling room, seventeen billiard tables, a fifty foot rifle and pistol range with seven firing stations, a physical fitness room, two squash courts, eight meeting rooms, and a retirees' room equipped with color television, billiard table, library, lounge and card playing area.

Outdoor facilities include seven softball fields, of which two are lighted, ten tennis courts, and numerous horseshoe pits located throughout the plant area.

Mr. Moyer believed that The Eastman Kodak Company had one of the lowest rates of employee turnover of any company in the United States.

Salaries, working conditions, and the provisions of recreation are the three major reasons for this record.

He further stated that it is certainly easy to see how employers and employees benefit from such a tremendous program and concluded his correspondence with, "Thank you for thinking of Eastman Kodak when you think of 'Industrial Recreation'." This motto clearly indicates this company's sincere interest in the welfare of its employees.

Mobil Oil Corporation (1972) located in New York City, has a recreation facility which consists of a fully equipped training room, locker room, sauna, shower room, washer and dryer room, and an office. The top 450 executives are eligible to use the facility. This is restricted due to a limitation in space.

The participants are entitled to use the unit at any time during working hours. They are not charged for the program.

The fitness supervisor in charge of the program has a Master of Arts degree in Physical Education. His assistant has a Bachelor's degree in Physical Education. The program cost is approximately $68,000 a year which includes salaries, rent, fees and materials and supplies.

The program is protecting the fitness of those employees carrying the heaviest corporate responsibilities, thus cardiovascular records are maintained.

T.E. Allen M.D., the medical director, stated:

> The cost of the program is warranted by the fact that participants in a well regulated exercise program such as ours reduce their coronary risk factors, help control their weight and condition their muscles.

The Xerox Corporation (1972), since 1966, has set up five physical fitness facilities to provide individualized, closely monitored sessions to guard against cardiovascular disease.

The cost to the eligible executives is $100.00 a year. All clothing and equipment is supplied by Xerox.

Another progressive company in employee recreation is the American Can Company of Greenwich, Connecticut (1972).

Their facility includes an exercise room that has a fully equipped, ten station circuit training area, lockers, sauna, and showers. The employees are allowed to use the facilities from 10:00 A.M. to 5:30 P.M., five days a week. The instructor in charge has twenty-five years of physical education work experience. The salary range for his position is approximately $11,000 to $17,000. The 1971 program cost, including the instructor's salary, was approximately $22,000. There is no cost to the participating employees.

American Can feels that the cost of the program is warranted because of the improved sense of well-being enjoyed by the participants. The company keeps cardiovascular fitness records on all participants.

Union Camp Corporation of Wayne, New Jersey (1972), has a physical fitness room, lockers, showers and a sauna bath. There are 500 employees in the building with approximately 260 males eligible to participate in the program. Females will be phased in at a later date.

The eligible participants may use the facility before work, during work, or after work as their work schedule permits. There is no cost to the employees for participation in this program. The company provides all equipment and clothing except running shoes.

The instructor has a Physical Education degree and earns $10,500 a year. The cost of the program is approximately $37,000 a year. Cardiovascular records are kept on the participating employees.

The United States is far from being the only country in which companies provide some form of employee recreation.

Many Japanese companies have extensive recreation programs for their employees. An example of such a company is the Sony Corporation. This company has 14,193 employees for whom are provided various recreational facilities. Some of these facilities were described in a letter received from Mr. Morimoto (1970)*, Assistant Manager, Industrial Relations. The facilities included: gymnasiums, tennis courts, a swimming pool, a recreational building for women, a club-style building for social functions, a playground for outdoor sports which employees use on holidays, and a hotel and inn-style facilities by the seaside and at a mountain resort which are available for use by employees' families. Employees are also entitled to make overnight trips to a particular resort location, in groups, once a year. Employees contribute a nominal fee for use of the seaside and mountain resorts. The remaining facilities are run by the company without imposing any financial burden on the employees.

An article in Time magazine (1970:73)** referred to the fringe benefits given to the 38,500 employees of Toyota Motor Company of Japan. Toyota provides free bus transportation to and from work for employees, and pays for the gasoline used by workers who commute in their own cars. The company maintains a 344 bed hospital with twenty doctors in attendance. Toyota also provides a plentitude of sports

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* Referenced under "Japanese Labor's Silken Tranquility."

**Referenced under "Sony Corporation."

and recreational facilities: swimming pools, meeting halls, tennis courts, golf courses, baseball diamonds, and rugby fields. Classes are offered in various activities. For vacationing employees, Toyota operates a string of mountain and seaside resorts which charge approximately $1.40 a day, which includes meals. These benefits are motivated less by union pressure than by management's desire to reinforce worker loyalty.

In an article about Japan (1968)* it was stated: "The welfare and recreational facilities provided by Japanese enterprises are important factors for a worker to weigh before he decides on his lifetime employer."

The Federal Republic of Germany is another country in which the aspect of employee recreation is very important.

"Get trim" at your place of work is already a regular part of the working day in many firms, in particular the larger ones. At the SABA Works in Villingen (1972) sport has been a compulsory subject for apprentices over the past five years. The wives of the men working for SABA are also allowed to take part in the gymnastic hours. The sports lessons are headed by gymnastics and sports teachers which the firm employs. The high number of illnesses of employees on the one hand, and the results of sports medicine's findings on the other, ensure that the example of Villingen is being followed.

The German Sports Federation feels that, in a simple manner, premature physical wear and tear, labour fatigue and circulatory diseases which are becoming more and more frequent in young people, can be avoided.

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*Referenced under "Labor Relations."

Many industrial employers in Finland (1972:39) have introduced the provision of certain health services in order to maintain the worker efficiency at work. Physical recreation is an essential part of these services.

Canada, too, is beginning to experience the development of activity programs aimed at sedentary corporate employees. Many of these programs are offered through the facilities of outside organizations such as the Y.M.C.A.'s or private clubs. Facilities within a corporation's own building is limited at this time but there are positive indications this concept will grow.

Through correspondence with Mr. Donald Payne (1973)*, Associate Director, main Toronto Y.M.C.A., it was learned that they run programs for numerous companies in the Toronto area. The following six companies with participants shown in brackets, partly pay the membership cost for their participating employees: McDonalds' restaurant (20), National Trust (19), Opportunities Unlimited (18), Shell Canada (16), T. Eaton Co. (68) and Toronto Baptist Seminary (14).

People's Credit Jewellers pays the membership dues for 15 participating employees.

Payne also indicated that Ontario Hydro is currently building a new office tower in Toronto which will contain recreation facilities for the employees.

Mr. Georges-A. Rouleau M.D., Director, Hydro-Quebec Health Directorate, through personal correspondence (1973), revealed that Hydro-Quebec has sponsored a physical conditioning program for executives since 1971. Until this year 1973-74, members could choose among

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*Referenced under "Young Men's Christian Association."

several recreation centers which were rented on specific days by the club (EPic). This year, however, EPic has built its own center. There are 50 executives registered out of the 80 that were eligible. The sessions are weekly for two hours in the evening on personal time. To qualify as a participant, the interested person must submit to a complete medical examination including electrocardiogram, laboratory tests and physical capacity testing. The program is then organized to suit individual requirements and state of health. The member receives dietary counselling and is closely supervised by the medical team. Hydro-Quebec pays all costs, except for gym attire and a locker fee.

Hydro-Quebec felt that stress, lack of exercise, sedentary habits and the high incidence of cardiac disease among executives were reasons enough to initiate physical conditioning in this group. The members have been very responsive and report specific improvement in state of health, resistance to stress, work capacity and mental hygiene.

Mr. B.G. Richardson, Chief, Health and Welfare, Canadian Government, through personal correspondence (1973)*, indicated that the main Post Office in Ottawa initiated a fitness program in the summer of 1972. Before the program began, the 400 interested employees underwent medical examinations sponsored jointly by National Health and Welfare and International Health Systems Ltd. using an automated multiphasic health testing system. The program was originally operated in a high school and a recreation center. Presently, an area closer to the office building is being considered as it was felt that convenience has a positive correlation with participation.

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*Referenced under "National Health and Welfare."

The Post Office is building two new depots in Toronto, both of which are very large and which will contain some recreational areas.

In Edmonton, R. Angus Alberta Ltd. (1973) may be the possible forerunner, at least in Canada, of a new concept, a compulsory activity program for executives. Presently 30 executives are participating in a supervised fitness program at the main Y.M.C.A. The company pays for everything except gym attire and the participants may go anytime during office hours. The program is operated three times a week and they are allowed to go in groups.

The president initiated the program because of his desire to have healthy executives. He is now contemplating a compulsory program for at least his five vice-presidents. Those who choose not to participate would receive a lower salary. A vice-president's job in the future would require participation in a fitness program as a condition of employment.

Employee Recreation as a Fringe Benefit

Employee recreation has definitely emerged as a company fringe benefit in the United States as evidenced by the preceding statements.

The total concept of fringe benefits, for example the medical plan, the hospitalization plan, and the pension fund, has increased sharply over the years in both Canada and the United States. A study prepared by the Economic Analysis and Study Group, United States Chamber of Commerce (1966:27) found that, "Reported fringe payments increased steadily from 16.1% of the total payroll in 1947 to 28.1%

in 1965." This was a rise of 75% in the eighteen year period. A Canadian study (1970:8), published by the Thorne Group Ltd., showed very similar statistics. "Fringe benefits as percentage of payroll increased from 15.1% in 1953 to 27.91% in 1969, an increase of 84.8% in sixteen years." In 1969, the outlays in both the United States (27.9%) and Canada (27.91%) were virtually the same. In Canada in 1969 the total outlay for all employees was 99.63¢ per hour per employee, or $1,992 per employee per year. The United States rose from $450 in 1947 to $1,874 per employee per year and 22.1¢ in 1947 to 88.8¢ per hour per employee in 1965. The United States study revealed that larger firms tended to pay higher fringe benefits than smaller firms and the payments varied widely from industry to industry.

The Canadian study showed that the percentage of companies having recreational activities as a fringe benefit increased from 54.8% in 1967 to 61.7% in 1969. Seven of ten petroleum industries, eleven of eleven public utilities and six out of seven finance and insurance companies had some form of recreational activity.

D. Allen (1964:39) referred to a use of fringe benefits: "Fringe benefits, therefore, have often been voluntarily adopted to keep, or to attract, labor -- in other words, for the purpose indirectly of increasing productivity by reducing turnover costs."

A.J. Deric (1967:115) attempted to explain the basis for a company including recreational activities:

> The degree to which any one company provides social and recreational activities is determined in part by its past history, its location in a metropolitan or urban area, and whether other adequate facilities are available.

Whatever the basis might be, companies have found the employee recreation program to have many benefits.

Absenteeism, turnover and low productivity and morale can seriously affect company profits (Ryan, 1947). Charles Zimmerman (1967: 44), President of Connecticut Mutual Life Insurance Co., pointed this out:

> Suppose a company has 100,000 employees and a rate of turnover of 30%. Suppose that the company decides that the average cost of an employee leaving and being replaced is $600. This would make the total annual cost to the company eighteen million for turnover.

An employee recreation program can help to alleviate these problems and at the same time provide the employees with many benefits.

An article in Personnel Journal (1963:520) on employee recreation, stated that employee recreation programs, in terms of the productivity versus cost ratio, have proved to be extraordinarily effective. In dollars and cents terms, industrial leaders extol recreation as an important and even an economical way to increase productivity, reduce turnover, lessen absenteeism, recruit new top-notch personnel, and retain trained employees. With improved employee morale, management gets more work for the same pay.

Textile World (1964:56)* in an article on employee relations said, "Low turnover, highly talented executives, low absenteeism, and high morale all combine to enhance productivity. The obvious immediate benefit is a favourable effect on corporate profits."

Jackson M. Anderson (1951) indicated that industry can assist workers to find relaxation by providing an adequate employee recreation program. The employee who has been given this opportunity to lose

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*Referenced under "Recreation: Key to Good Employee Relations."

himself in an activity and find complete mental relaxation from the worries of his job, returns to his work with a real zest. He is less susceptible to nervous disorders and is more efficient in his work. He has had the change of pace which is so necessary in the complex society in which he goes about his daily routine. Anderson (1951:273) also related that:

> Employee recreation builds morale, increases worker efficiency, and reduces employee turnover and absenteeism.
>
> The report of a two year study by the Industrial Health Board of Great Britain indicates that a lack of sufficient recreation may be the cause of at least twenty percent of all absenteeism.

An article in Personnel Journal (1963:38-40)* indicated the reasons for employee recreation to be simple and basic: the impact of more leisure time and the need to retain the loyalty and enthusiasm of skilled workers. The feeling was that companies consistently correlated low turnover to the existence of an employee recreation program.

Bennett Berger (1962:31-45) stated that the Diamond Alkali Company discovered that the inclusion of recreational facilities near its Houston plant has reduced absenteeism.

In a study by the National Industrial Recreation Association, reported in a book by Lobsenz (1962), it was shown that employees of companies with recreation programs had a lower incidence of absenteeism and a higher rate of job efficiency and morale.

Norman Miller (1963) felt that management has learned to pay some attention to the physical and mental health of the workers as factors in productivity.

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*Referenced under "New Emphasis on Recreation in Employee Relations."

In a Recreation Management article (1969:30)*, it was reported that:

> N.A.S.A. ran an experiment with forty men at a high executive level for a six month exercise study. Preliminary indications are that N.A.S.A. participants "were more able to sustain higher levels of productivity during the day."

Robert L. Fleck, M.D. (1971), Chief, National Aeronautics and Space Administration Headquarters, Employee Health Unit, stated that undocumented discussion with subjects, their associates and superiors revealed a definite impression of increased productivity throughout the work day. This has led Fleck to believe that an exercise program is a definite asset to management, not just a fringe benefit for the employee.

An article in The Annals of the American Academy of Political and Sociological Science (1957:79-82) stated that American Industry valued employee recreation programs because of beneficial returns in the areas of physical health; "Increased working days lost from common head colds, and general lack of physical fitness have prompted the establishment of extensive athletic programs in plants," and Mental Health; "Boredom from routine jobs, noise, tensions, conflicts, and increase in mental illness have led to the provision of activities that check fatigue and relieve tension." The Industry also referred to the benefits of leadership training, employee stability, community relations, social relationships, work atmosphere and democracy, environment; "Company programs with good leadership protect the employee from adverse commercialized recreation areas and exorbitant entertainment expenditures," and morale; "The company appears human -- it

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*Referenced under "Spotting Heart Attacks Beforehand."

shows that employers are interested in the employees, their welfare, leisure, and chance to enjoy life both on and off the job."

The article concluded with a statement which could provide the impetus for the succinct inclusion of physical activity and recreation programs within corporations, "Industrial Recreation offers a challenge to American business to plan for their employee's leisure as ardently as they do their productivity."

Cardiovascular Problems Related to Sedentary Life

There has been a great deal of research completed in an attempt to conclusively prove that physical activity is an effective preventive measure against various health problems that develop within a sedentary society.

This sedentary nature of our lifestyle has led to a decrease in physical fitness.

G.G. Reiff, H.J. Montoye and others (1967:135-41) reported:

> Automation and higher standards of living throughout the world have resulted in a decrease in physical activity for most adults and children in industrialized countries. This has led some investigators to hypothesize that a more sedentary way of life contributes to the development of certain pathologic conditions, particularly coronary heart disease.

Laird and Laird (1962:1) referred to this problem when they stated:

> Sedentary living lowers (downgrades) fitness in many ways and also affects qualities that are related to physical fitness, such as the feeling of well-being, the joy of living, work efficiency even for 'mental work', and at times its effects even endanger life.

H.J. Johnson, Chairman of the Medical Board, Life Extension Institute, in a book edited by T. Irwin (1967:26) reported, "As a medical man, I can testify that leisure time and 'affluence' do produce health problems."

Fox and Skinner (1964:731-46), in an article on physical activity and cardiovascular health, stated that:

> Concurrent with a reduction in the requirements for physical activity in modern living there has been an increase in death and disability from cardiovascular diseases associated with "athero-thrombotic" processes. Although we do not consider a causal relationship established, some excellent studies suggest that physical inactivity may be one of possibly many factors involved in the increasing prominence of ischemic vascular disease, the most significant form of which is coronary heart disease.

Teraslinna (1968:735) found that:

> The change describing the development of susceptibility to cardiovascular disease can be brought about by the dual influence of:
> A. The anxiety of a competitive society which develops the metabolic readiness to action.
> B. The lack of opportunities for physical activities caused by the industrialized, mechanized and sedentary civilization.

Campbell (1969:266), in an article on leisure time profiles found that:

> Psychologists and psychiatrists have established that tensions, conflict, and emotional strains are concomitants of a complex civilization that can and do cause a number of physical ailments such as hypertension, cardiac troubles, and ulcers. The role that recreational activity can play in relieving these tensions has also been emphasized.

Automation has produced a great number of white-collar jobs. This development has been accompanied by health problems for the white-collar worker.

Seward C. Staley of the University of Illinois, in a book by Laird and Laird (1962:1) found that, "White-collar workers, unfortunately, can be almost as sedentary as the aged. More than twice the exertion of the typical white-collar job is required when shower-bathing at home."

A.Kilbom and associates (1969:315-23) stated:

> The results of population studies have suggested that men with sedentary occupations are more likely to develop arteriosclerotic cardiovascular diseases than those with heavy, non-sedentary work.

The following findings were reported by Fox and Skinner (1964: 731-46) first, from work by Morris and associates:

> Physical activity of work is a protection against coronary (ischaemic) heart disease. Men in physically active jobs have less coronary heart disease during middle age, what disease they have is less severe, and they develop it later than men in physically inactive jobs.

Second, from work by Brown and colleagues:

> The data suggest that whatever the mental demands of occupation, in relation to physical demands, there is a consistent increase in the frequency of the disease from work which is "very heavy" to work which is "sedentary." The difference associated with degree of physical activity was most marked in the higher rather than in the lower social groups.

In a pamphlet entitled "The Contributions of Physical Activity to Physical Health", Fred V. Hein and Allan J. Ryan (1960:269) stated, "Occupations of highest incidence of coronary disease are also those involving minimal physical activity."

Thus it is becoming increasingly apparent that the white-collar worker should be taking part in some form of physical activity as a preventive measure against various health problems.

An article in Dun's Review (1965:45) reported, "If a man's job is sedentary, his tiredness may be merely due to a lack of exercise."

In a text by Astrand and Rodahl (1970:600), Linden stated, "If the work becomes physically less demanding, some physical activity must be included during leisure time to provide the body with the stimuli it needs to function at its best."

Raab (1964:19) stated that:

> The incidence of disability and death from degenerative heart disease in the United States surpasses that of all other nations. Fifty-five percent of all deaths are due to cardiovascular disease.
>
> The leading Soviet cardiologist, Myasnikov, found the lowest morbidity among manual laborers. It is exceeded two-fold by that of employees, and four-fold by that of scientific workers burdened by greater responsibilities and intellectual emotional tensions.
>
> In areas of the German Federal Republic, about twenty thousand fatigued and tense, but not yet overly sick patients are being reconditioned annually for four to six week periods without cost.

The following statements were made by William DeCarlo (1968:33) and point out the importance of activity programs for businesses:

> If one were to single out the major objective of the recreation program, it would certainly be to promote physical fitness.
>
> Like any other company, Xerox is people; its future rests with them and it has a substantial interest in them. It simply can't afford to have key people fall prey to disabling illnesses or worse.
>
> Any change of pace injected into an employee's routine contributes to his resilience, his freshness, his general fitness -- in short, to both his health and his job performance.

J.M. Chevrette (1969:25) reported that, "The American Medical Association, not noted for such rash statements, as early as 1964

recommended thirty to sixty minutes of exercise daily to maintain physical capacities."

F.R. Eastwood (1946:226) recognized this need when he said:

> Management today have the tendency to refrain from any activity which causes perspiration. They have been so bound up by the mechanizations of life that they are all reaching for a push button instead of a bowling ball or a baseball. This lethargy has tended to lower resistance to diseases of middle-age such as ulcers, hypertension, high blood pressure, and nervous exhaustion. These infirmities are a natural accompaniment of a life spent in right-angled and horizontal postures. Thus management need recreation themselves if they are to keep fit for the job.

J.A. Faulkner and others (1969:160-64) alluded to this need for recreation for those in management positions when they stated:

> Executives have often been considered to have a high incidence of coronary heart disease and this has been attributed to their physical inactivity and/or the assumed stressful nature of their occupation.

H.I. Russek (1959:503-08) appeared to be in agreement with the above when he reported:

> We found that executives differ significantly from a total population of men in almost all variables associated with a higher incidence of coronary heart disease. The difference in each variable implied a higher risk rate for the executives.

Many studies have attempted to explain the positive effects of physical activity in relation to various health problems.

V. Gottheiner (1969:426-35) stated that:

> Numerous clinical, experimental, and epidemiological studies have provided abundant evidence of a potentially beneficial effect exerted by habitual muscular activity (and of the detrimental effect produced by lack of exercise) upon the metabolic, functional, and structural health of the heart muscle.

M.H. Frick (1968:417-25) noted, "In conclusion, the available

data reveal that regular physical activity favorably affects cardiac oxygen requirements."

A.H. Steinhaus (1966:18) said:

> Many papers presented at the first International Congress of Sport Sciences dealt with the effects of training on heart and blood vessels. In general, they agreed that exercise will postpone the onset of changes that aging brings to the heart and blood vessels.

V. Linden (1969:47-53) found that, "People with normal or high physical fitness will, in the course of their daily work, draw on their energy to a smaller extent, and will generally not overtax their respiratory and circulatory systems."

George Wheatley, Medical Director, Metropolitan Life Insurance Company, in a book edited by Irwin (1967:71) reported:

> Over the long run, the physically fit individual is less likely to be overly aggravated by tensions. His tolerance for stress is high. He has both the energy and resilience to take it. Physical activity can and does ease minor tensions.

J.A. Baley (1955:1) in an article on recreation and the aging process, stated:

> Several studies have shown that middle-aged men just as younger men, can improve their physical fitness status as indicated by tests of muscular strength, power and endurance, agility, and cardiovascular and respiratory efficiency through a program of progressive physical exercise.

J.B. Wolffe (1964:65) said, "To conclude, ample experimental and clinical evidence indicates that continuous vigorous physical exercise plays an important role in the prevention of cardiovascular diseases."

SUMMARY

The review of literature focused on the evolution of Industrial Recreation in various countries, the development of employee recreation as a fringe benefit and an examination of cardiovascular problems related to a sedentary lifestyle.

The historical investigation revealed that employee recreation programs have been part of company life for a great length of time in many countries. The various recreation programs have taken many forms, including extensive recreation centers, acreages for employees, capsule mini-laboratories for cardiovascular improvement, and membership in clubs offering fitness programs. Participation ranges from executives to executives and employees to total family involvement. The programs operate under many financial plans such as full company sponsorship, part company sponsorship or full employee responsibility.

Employee recreation programs have developed as a company fringe benefit. The literature indicated that recreation programs have alleviated, to varying degrees, corporate problems such as absenteeism, employee turnover and low productivity and morale.

The literature showed the dangerous impact of a sedentary lifestyle on white-collar workers. There has been a marked decrease in physical fitness concurrent with a reduction in the requirements for physical activity in modern living. This has led to an increase in death and disability from cardiovascular diseases. This increase has been noted more often within the ranks of the sedentary white-collar

worker, especially the executive. Many completed research studies attempted to conclusively prove that physical activity can be an effective preventive measure against cardiovascular diseases.

The review of literature has indicated that physical activity and recreation programs have a definite place in today's corporations. The literature supplied extensive evidence that these programs benefit both employer and employee. This evidence indicated the need for a survey of Canadian white-collar employees, and corporate management, to analyze their attitudes regarding this concept.

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CHAPTER III

METHODS AND PROCEDURES

METHODS

Questionnaire

A pilot survey investigating the attitudes of corporate employees toward physical activity programs, using the questionnaire technique, was completed.

After analysis of the results it was felt that certain revisions and additions should be made to the original questionnaire. If a particular question appeared to have been frequently misinterpreted, the wording was changed to allow for a clearer understanding of that question. To develop a more logical sequence, the ordering of the questions was revised. Thus the questionnaire progressed from general questions to questions that were more specific in nature. Other changes were implemented in the wording of the questions in order to better protect the participating companies from increased employee demands. In addition, the original covering letter for each questionnaire was restructured to provide a more succinct outline of the participating companies' intentions in cooperating with this study.

One question from the original study dealt with the attitudes of employees toward taking part in a compulsory physical activity program in company owned facilities. It appeared that the term "compulsory" without any further explanation as to the nature of the program intimidated the subjects and unfavourably affected the responses.

Therefore it was felt that a thorough explanation of the nature of a compulsory program was required to elicit a better and more valid response.

A new section consisting of nine questions was added to the original questionnaire. The questions dealt with the respondent's sense of satisfaction with his job and his views on the amount of routinization involved in his work.

The questionnaire was colour coded for each city used in the study. In consultation with the Division of Educational Research Services at the University of Alberta, a method of coding each question was devised to allow the computer cards to be completed directly from the questionnaire. The NON P10 computer program was recommended and utilized as the one which would effectively handle the results of the survey.

Nature of Sample

Major Canadian companies (forty-two in total) were sent letters of inquiry over the signature of Dr. M.L. Van Vliet, Dean, Faculty of Physical Education, requesting their participation in the study. In each case the letter of inquiry was sent to the top company executive, whose name was obtained from the annual reports of each company. In addition, the honourable Mr. John Munro, who at the time was the federal Minister of Health and Welfare, was contacted regarding the possible participation of the Department of National Health and Welfare employees in Ottawa.

The selection of companies provided for varying types of businesses and employee population sizes. This procedure, rather than a random selection of companies, was chosen in order to provide a meaningful cross-section of Canadian corporations.

Twelve companies (a company, for the purposes of this study, will include eleven business firms and one department of the federal government), finally consented to allow their employees to participate in the study. The companies which did not participate were reluctant to have their employees complete the questionnaire mainly because of an existing company policy which prohibited this type of participation.

Six distinct types of companies were identified within the twelve studied: insurance (one company, 143 employees), petroleum (three companies, 260 employees), manufacturing (two companies, 196 employees), public utilities (three companies, 375 employees), government (one federal department, 109 employees), and private (two companies, 130 employees).

The twelve companies were divided into three classifications according to employee populations: up to 200 employees (four companies), 201-800 employees (five companies), and 801 employees and over (three companies).

The total sample consisted of 1,213 white-collar employee respondents from twelve companies in the Canadian cities of: Vancouver (four companies), Calgary (three companies), Winnipeg (two companies), Montreal (one company), Toronto (one company), and Ottawa (one company). Thus, geographically, nine company head offices were located in Western Canada and three in Eastern Canada. There were 886

respondents from the West and 327 respondents from the East.

As well as the questionnaire, personal interviews were conducted with a high ranking company executive and either the company Medical Director or the Director of Personnel for each of the twelve participating companies. An identical set of questions was posed to top executives, Medical Directors, or Directors of Personnel for a number of United States companies. These companies already provided fitness facilities and programs for their employees and/or executives. It was hoped that these two sets of personal interviews with Canadian and American executives and involving persons in comparable positions would provide insight as to why implementation of these facilities had developed more rapidly in the United States than in Canada.

PROCEDURE

A contact was established with each participating company and, in most cases, it was the Director of Personnel.

Each participating company in the study was requested to forward to the researcher a list of its employees and the corresponding departments in which they worked. In all cases the company sent a building telephone directory list or a computer payroll printout sheet.

A random sampling was performed, when necessary, using random tables (1962), to derive the required number of participants for each company. The required number was not based on a fixed percentage of a company's employee population. It was determined by an amount that each company would allow combined with a desire by the researcher to

have approximately the same number of employees sampled in each city. In some cases the total employee population was sampled.

Those selected were categorized according to departments. The ensuing list, together with the required number of questionnaires for that company, was sent to the respective company contacts in advance of the researcher's personal visit. Each company contact notified department heads as to which employees in his section would be asked to complete the questionnaire. After a suitable length of time each department head was responsible for collecting the completed questionnaires in his department and returning them to the company contact.

Upon arrival at the company, the researcher endeavoured to personally interview a top executive from each company. The same set of questions was asked each of the participating companies responding executives. Wherever possible, the Director of Personnel was interviewed, once again using the same set of questions.

The completed questionnaires were immediately sent back to the Division of Computing Sciences, University of Alberta, to be keypunched on to computer cards. The researcher then travelled to the next designated city and followed the same procedure as closely as possible.

Subsequently, the keypunched cards were processed through the computer under conditions designed to yield frequency distributions.

Following the computer analysis, the results were compared. The percentage of respondents that agreed with a question, the percentage that were opposed as well as the percentage that were indifferent was

compared. These results were obtained from the questions which employed a Likert (1961) five point scale technique. Comparisons were then made between designated age groups, separate and combined sex categories, company types and sizes, cities, and geographic regions of the country.

In addition, a chi-square analysis was performed in order to determine the goodness of fit of one distribution of responses to another distribution of responses, and probability in relation to the comparisons was considered.

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CHAPTER IV

RESULTS AND DISCUSSION

A total of 1,725 questionnaires (see Appendix A) were distributed to employees chosen by random sample from the total employee populations of twelve Canadian companies. Completed replies were received from 747 males (61.6%) and 466 females (38.4%), for a total of 1,213 responses (70.3%).

Each respondent was categorized according to age, marital status and job classification.

TABLE I

AGE, MARITAL STATUS AND JOB CLASSIFICATION

AGES	GROUP	MALES (%)	FEMALES (%)	PERCENTAGE OF TOTAL POPULATION N = 1213
15 - 25	1	28.2	71.8	28.2
26 - 35	2	68.2	31.8	27.5
36 - 45	3	77.8	22.2	19.8
46 and Over	4	79.1	20.9	24.5
MARITAL STATUS				
Single		11.6	41.6	23.2
Married		86.0	48.3	71.4
EXECUTIVE/OFFICE				
Executive		92.7	7.3	28.1
Office		49.6	50.4	71.9

NOTE: For the purposes of this study job descriptions and responsibilities determined whether an employee was considered as an executive or as office personnel.

Discussion

Table I showed that females dominated group one (ages 15-25) and males dominated the other three age groups. It also indicated that there were more single females (41.6%) than single males (11.6%) and more married males (86.0%) than married females (48.3%).

As well, the figures in Table I revealed the office personnel to be comprised of nearly the same proportion of males (49.6%) and females (50.4%). However, executive personnel were heavily dominated by the males (92.7%) compared with the females (7.3%).

In order to understand certain tables in this chapter an explanation showing the derivation of some of the column identification codes from the questionnaire was felt to be necessary. These are as follows:

TABLE II

DERIVATION OF COLUMN IDENTIFICATION CODES

QUESTION	QUESTION DESCRIPTION	CODE
15	Is an organized activity program worthwhile?	Program worthwhile
16	Company should provide some form of a program?	Company provision
17	Would a facility improve company morale?	Improved morale
18	Participation of your family is worthwhile?	Family participation
19	Is a program as an employee benefit desirable?	Employee benefit
20	Would you participate in such a program?	Would participate
21	Is a facility within a building desirable?	Facility in building
22	Would you pay a fee for the facility?	Pay a fee
23	If yes, how much would you pay?	Amount per month

The first hypothesis stated that Canadian white-collar employees will be interested in participating in a compulsory recreation and fitness program. This hypothesis was formulated after previous research (Wanzel, 1971).

A comparison of compulsory program attitudes with geographic location revealed that 48.3% of those living in Western Canada and 51.4% of those living in Eastern Canada agreed that a compulsory physical activity program conducted by a company was desirable. Sixty point five percent (60.5%) of those living in Western Canada showed a willingness to participate in a compulsory program. Of those living in Eastern Canada, 61.2% were willing to participate.

When compulsory program attitudes were compared with marital status, 48.8% of the single respondents agreed that a compulsory program was desirable, as did 48.8% of the married respondents. Sixty-one point one percent (61.1%) of the single respondents and 60.1% of the married respondents indicated a willingness to participate in a compulsory program.

When compulsory program attitudes were compared with company size, 46.8% of the employees of a company with a small employee population (0-200) agreed that a compulsory program was desirable. Of those employed by medium-sized companies (201-800), 47.4% agreed a compulsory program was desirable while 50.9% of those employed by large companies (801 and over) were agreed. Of the employees of smaller companies, 57.4% indicated a willingness to participate in a compulsory program. Fifty-eight percent (58%) of the employees of a medium-sized company and 63.2% of those employed by large companies

also expressed a willingness to participate in a compulsory program.

The following table shows comparisons for respondents' attitudes toward a compulsory activity program with city, company type, age, job satisfaction index and executive/office.

TABLE III

ATTITUDES TOWARD A COMPULSORY ACTIVITY PROGRAM

CITY OF RESIDENCE		DESIRABILITY OF PROGRAM (%)	WILLINGNESS TO PARTICIPATE (%)
Vancouver		51.8	60.5
Calgary		43.0	56.3
Winnipeg		47.7	62.6
Toronto		55.3	69.6
Ottawa		55.6	56.6
Montreal		45.6	59.5
COMPANY TYPE			
Insurance		53.2	67.6
Manufacturing		46.6	61.5
Public Utilities		52.3	64.6
Petroleum		40.9	48.4
Government		55.6	56.6
Private		45.0	60.2
AGES	**GROUP**		
15 - 25	1	56.6	67.1
26 - 35	2	48.6	61.5
36 - 45	3	45.2	58.3
46 and Over	4	41.7	50.3
JOB SATISFACTION INDEX			
Satisfied		46.2	58.6
Neither satisfied nor dissatisfied		52.3	62.1
Dissatisfied		50.7	59.6

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EXECUTIVE/OFFICE	DESIRABILITY OF PROGRAM (%)	WILLINGNESS TO PARTICIPATE (%)
Executive	45.4	57.4
Office	50.7	61.1

Discussion

Table III indicated that many respondents felt a compulsory physical activity program conducted by a company was desirable and there was a willingness to participate. The figures for city, company type, age, job satisfaction index and executive/office comparisons were mildly surprising in terms of favourability of compulsory programs. It would appear that many Canadian employees would be quite receptive to a properly presented compulsory physical activity program.

A comparison of compulsory program attitudes and sex revealed that 48.5% of the males and 48.7% of the females indicated that a compulsory physical activity program was desirable. Sixty point three percent (60.3%) of the males and 58.8% of the females were willing to participate in a compulsory activity program.

When compulsory program attitudes were compared with a respondent's present involvement with physical activity, 50.9% of those presently involved in some form of activity agreed a compulsory program was desirable. Of those not presently involved in activity, 45.1% also agreed that a compulsory program was desirable. Sixty-three percent (63%) of those presently involved in activity and 54.9% of those not presently involved in activity indicated a willingness to

participate in a compulsory program.

In summary, differences in attitudes toward a compulsory physical activity program and its desirability did not appear when comparisons were made with geographic location, marital status, company size, executive/office and job satisfaction. Significant differences* did appear for city, company type, age, sex and present involvement with activity comparisons.

Differences in attitudes toward a compulsory physical activity program and willingness to participate did not appear when comparisons were made with geographic location, marital status, company size, city, executive/office and job satisfaction. Significant differences did appear for company type, age, sex and present involvement with activity comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XXVIII).

The second hypothesis stated that employees would be interested in participating in some form of physical activity. This hypothesis was formulated after reviewing Zborowski (1962:302) and Brunner (1969:464).

A comparison of participation interest with geographic location revealed that 70.5% of those living in Western Canada would participate in a non-compulsory physical activity and recreation program. Of those living in Eastern Canada, 68.2% were willing to participate.

When participation interest was compared with marital status,

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*All significant differences in this study were determined at the .05 level.

69.8% of the single respondents indicated an interest in participating. Of the married respondents, 69.6% were interested in participating.

When participation interest was compared with company size, 76.1% of the employees of a company with a small employee population (0-200) indicated an interest in participating in physical activity. Sixty-seven percent (67%) of the employees of a medium-sized company (201-800) and 68.3% of the employees of a large company (801 and over) also expressed a willingness to participate.

A comparison of participation interest of employees in various cities revealed that there were differences. Of the respondents who lived in Ottawa, 63.6% were interested in participating in physical activity. This showed the lowest interest. Calgary respondents were next with 65.2%, then Winnipeg with 68.8%, Vancouver 75.4% and finally Toronto whose respondents showed the largest participation interest with 83.6%. This latter indication of high interest in participation might be explained by the fact that the sample was drawn from just one company and this company's head offices in New York State has fitness facilities for their employees and executives.

When participation interest was compared with company type, 70.6% of the employees of the insurance companies indicated an interest in participating in physical activity. Results for the other companies were: manufacturing 65.8%, petroleum 72.3%, government 63.6% and private 73.2%.

A comparison of participation interest with various age groups indicated differences between individual age groups. Seventy-five

point five percent (75.5%) of the respondents in group one (ages 15-25) were interested in participating in physical activity. Of the respondents in group two (ages 26-35), 71.1% were interested; 67.8% of the respondents in group three (ages 36-45) indicated an interest and 62.2% of group four (age 46 and over) respondents also expressed interest. These differences might be explained by the fact that, in our society, interest in participation seems to decline as age increases.

A comparison of participation interest with executive/office personnel showed 67.9% of the executives were interested in participating in physical activity. Of the office personnel, 71.0% indicated interest.

When participation interest and job satisfaction were compared, 70.1% of the employees satisfied with their jobs expressed a willingness to participate in physical activity. Sixty-nine point three percent (69.3%) of the employees neither satisfied nor dissatisfied with their jobs were interested and 67.4% of the employees dissatisfied with their jobs also expressed interest.

A comparison of participation interest and sex revealed 70.7% of the males and 68.0% of the females indicated an interest in participating in physical activity.

In summary, differences in interest in participation in physical activity did not appear when comparisons were made with geographic location, marital status, company size and type and job satisfaction. Significant differences did appear for city of residency, age, sex and executive/office comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XXIX).

The third hypothesis stated that employees will be willing to monetarily support a facility contained within an office structure. This hypotheses was formulated after previous research (Wanzel, 1971). Indication of monetary support of a facility when compared with geographic location, marital status, company size and type, city, age, sex, executive/office, job satisfaction and present involvement with activity appears in the following table.

TABLE IV

FACILITY ACCEPTANCE AND AVERAGE MONETARY SUPPORT

COLUMN IDENTIFICATION CODE	DESCRIPTION	RELATED TO QUESTION 21 FACILITY ACCEPTANCE (%)	RELATED TO QUESTION 22 WILLINGNESS TO PAY A FEE (%)	RELATED TO QUESTION 23 AVERAGE FEE PER MONTH PER EMPLOYEE
Geographic Location	West	76.8	78.3	.78¢
	East	71.3	79.8	.77¢
Marital Status	Single	77.9	80.0	.91¢
	Married	74.5	77.8	.73¢
Size of Company	Small	79.1	78.6	.89¢
	Medium	75.9	78.4	.98¢
	Large	71.9	78.1	.91¢
Cities	Vancouver	80.9	76.1	.88¢
	Calgary	70.3	76.3	.94¢
	Winnipeg	78.7	83.2	$1.00
	Toronto	87.3	89.1	.77¢
	Ottawa	74.3	77.8	$1.04
	Montreal	63.2	77.1	.90¢

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COLUMN IDENTIFICATION CODE	DESCRIPTION	RELATED TO QUESTION 21 FACILITY ACCEPTANCE (%)	RELATED TO QUESTION 22 WILLINGNESS TO PAY A FEE (%)	RELATED TO QUESTION 23 AVERAGE FEE PER MONTH PER EMPLOYEE
Type of Company	Insurance	80.5	85.8	.97¢
	Manufacturing	63.7	77.8	.93¢
	Public Utilities	75.7	76.6	.91¢
	Petroleum	77.6	75.1	.89¢
	Government	74.3	77.8	$1.04
	Private	80.5	82.8	.93¢
Age	15 - 25	81.0	84.7	$1.13
	26 - 35	78.4	81.5	.87¢
	36 - 45	74.1	75.1	.84¢
	46 and Over	65.5	69.6	.81¢
Executive/ Office	Office	77.4	80.2	$1.04
	Executive	69.8	75.9	.62¢
Job Satisfaction Index	Satisfied	74.2	79.6	.90¢
	Neither	79.1	79.7	.92¢
	Dissatisfied	69.9	68.8	$1.02
Sex	Male	72.7	76.1	.75¢
	Female	79.1	82.0	$1.20
Present Involvement with Activity	Yes	76.4	78.8	.85¢
	No	73.1	77.3	$1.05

Discussion

Table IV showed that the concept of having a fitness facility contained within a company's office building, was generally considered to be desirable. As well, this desirability was evident in relation to the employees' willingness to pay a fee for such a facility. The average amount per month for each employee showed a number of interesting differences. For example, females were willing to spend $1.20

per month and males were willing to spend only .75¢. Overall, the respondents did not seem willing to monetarily support a facility and program to a great extent.

In summary, differences in facility acceptance did not appear when comparisons were made with marital status, job satisfaction and present involvement with activity. Significant differences did appear for geographic location, company size and type, city, age, executive/office and sex comparisons.

Differences in willingness to pay a fee did not appear when comparisons were made with geographic location, marital status, company size, executive/office and present involvement with activity. Significant differences did appear for city, company type, age, job satisfaction and sex comparisons.

Differences in the amount of fee did not appear when comparisons were made with geographic location, company size and type and job satisfaction. Significant differences did appear for marital status, city, age, executive/office, sex and present involvement with activity comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XXX).

The fourth hypothesis stated that employees will wish to have their families involved in various recreation programs through the use of company facilities. This hypothesis was formulated after previous research (Wanzel, 1971).

A comparison of family involvement with geographic location revealed that 51.6% of those living in Western Canada felt involving

their families in a company recreation program was worthwhile. Of those living in Eastern Canada, 50.1% desired family involvement.

When family involvement was compared with marital status, 47.0% of the single respondents indicated a desire for involving families in company recreation programs. Of the married respondents, 51.9% desired family involvement. Of the respondents with children, 50.7% agreed involving a family was worthwhile while 51.8% of those without children agreed with this question.

A comparison of family involvement with various age groups showed that 57.1% of group one respondents (ages 15-25) desired family involvement in company recreation programs. Of the respondents in group two (ages 26-35), 47.5% desired family involvement; 45.1% of the respondents in group three (ages 36-45) desired family involvement and 48.1% of the respondents in group four (age 46 and over) desired family involvement. An interesting note was that age group one was only 12.5% opposed whereas the other three age groups were 24.1% opposed or greater.

A comparison of family involvement with executive/office personnel indicated that 50.5% of the office personnel and 47.8% of the executives were agreed that family involvement was worthwhile.

When family involvement and job satisfaction were compared, 52.0% of the employees satisfied with their jobs expressed a desire to have families involved in company recreation programs. Fifty point four percent (50.4%) of the employees neither satisfied nor dissatisfied with their jobs and 37.7% of the employees dissatisfied with their jobs desired family involvement.

A comparison of family involvement and sex revealed 48.9% of the males and 51.4% of the females felt family involvement in a company recreation program was worthwhile.

When family involvement was compared with a respondent's present involvement with physical activity, 49.6% of those presently involved in activity agreed family involvement was worthwhile. Of those not presently involved in physical activity, 50.5% also agreed family involvement was worthwhile.

In summary, differences of opinion toward family involvement in company recreation programs did not appear when comparisons were made with present involvement with activity. Significant differences did appear for geographic location, marital status, children, age, executive/office, job satisfaction and sex comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XXXI).

The fifth hypothesis stated that there exists a workable distribution load in regard to period of the day for the operation of the proposed facility. This hypothesis was formulated after previous research (Wanzel, 1971).

This hypothesis was explored through comparisons made with sex, age, executive/office and geographic location as related to employees' first choices for period of the day.

TABLE V

SEX, AGE, EXECUTIVE/OFFICE AND GEOGRAPHIC LOCATION COMPARED WITH FIRST CHOICES FOR PERIOD OF THE DAY

SEX	8-9 A.M.	9-10	10-11	11-12	12-1 P.M.	1-2	2-3	3-4	4-5
Males	37.7	22.8	24.8	40.4	48.4	23.3	23.0	19.5	40.7
Females	37.8	36.7	37.3	21.0	50.0	29.9	29.1	27.5	48.9
Total	37.8	28.3	30.0	33.2	49.0	26.3	25.8	23.0	43.5
AGE									
15 - 25 Group 1	35.2	40.4	37.3	19.7	47.3	30.4	27.4	23.0	49.7
26 - 35 Group 2	38.3	28.2	27.9	33.3	48.4	29.2	17.4	30.8	33.5
36 - 45 Group 3	34.6	23.5	23.5	36.8	48.7	27.9	29.4	19.0	45.7
46 and Over Group 4	44.8	11.1	25.0	47.3	52.8	14.5	26.5	15.7	47.9
Total	37.8	28.3	30.0	33.1	49.1	26.2	25.8	23.0	43.5
EXECUTIVE/ OFFICE									
Office	39.1	32.2	32.1	31.6	48.2	24.8	25.4	24.6	43.4
Executive	36.7	15.6	26.1	37.9	50.9	32.4	22.4	11.9	44.4
Total	38.3	28.7	30.5	33.2	48.9	26.4	24.8	22.0	43.7
GEOGRAPHIC LOCATION									
West	38.0	28.7	30.7	34.2	51.2	24.0	24.3	24.9	42.2
East	37.1	27.6	28.8	30.3	41.9	31.8	28.9	18.4	46.5
Total	37.8	28.3	30.0	33.1	49.1	26.2	25.8	23.0	43.5

Discussion

The figures in Table V showed that there was a fairly even distribution of males and females throughout the whole day in terms of employee "work-outs." The figures also indicated that there were no differences in period of day preferences for age, executive/office or geographic location. Thus it would seem feasible in terms of a

workable distribution load to operate a facility and program throughout the total working day.

The sixth hypothesis stated that there exists a workable distribution load in regard to days of the week for the operation of the proposed facility. This hypothesis was formulated after previous research (Wanzel, 1971).

This hypothesis was explored through comparisons made with sex, age and executive/office as related to employees days of the week preferences.

TABLE VI

SEX, AGE AND EXECUTIVE/OFFICE COMPARED WITH PREFERENCES FOR DAYS OF THE WEEK

SEX	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Males (886)	40.6%	37.2%	46.4%	38.3%	32.5%
Females (327)	54.7%	58.4%	75.5%	49.8%	37.9%
Total (1213)	44.4%	43.0%	54.2%	41.4%	34.0%
AGE GROUPS					
Group One (341)	46.3%	50.4%	61.3%	44.0%	31.4%
Group Two (333)	48.6%	46.5%	58.9%	45.3%	37.5%
Group Three (239)	45.6%	38.9%	54.4%	42.7%	31.8%
Group Four (296)	37.5%	34.8%	41.6%	33.8%	35.5%
Total (1209)	44.7%	43.3%	54.4%	41.6%	34.2%
EXECUTIVE/OFFICE					
Office (843)	43.5%	43.9%	53.9%	41.3%	32.4%
Executive (330)	47.9%	43.6%	55.5%	43.9%	38.2%
Total (1173)	44.8%	43.8%	54.3%	42.0%	34.0%

Discussion

The figures in Table VI indicated that there was a fairly even distribution of employees desiring to use the facility on each day.

Wednesday would appear to be the most preferred day in terms of facility use and Friday the least preferred. The table revealed that it is feasible, in terms of a workable distribution load, to operate a facility and program throughout the total work week of Monday through Friday.

The seventh hypothesis stated that the employees' attitudes will not vary according to satisfaction or dissatisfaction with their job. This hypothesis was formulated after reviewing Brunner (1969:464).

This hypothesis related to questions nine, ten, eleven, twelve and thirteen from the questionnaire. These questions all dealt with job satisfaction. A total response from all of these questions for each respondent was derived in this manner:

1 POINT	2 POINTS	3 POINTS	4 POINTS	5 POINTS
Completely Satisified	Well Satisfied	Neither Satisfied Nor Dissatisfied	A Little Dissatisfied	Very Dissatisfied

The points from each respondent were totalled for the five questions giving a job satisfaction index. The index was divided into three groups: group one - satisfied (5-12 points), group two - neither satisfied nor dissatisfied (13-17 points) and group three - dissatisfied (18-25 points).

A comparison of job satisfaction with question one (sex) revealed 60.7% of the males and 57.3% of the females were satisfied with their jobs.

This hypothesis was also explored through comparisons made with age, present involvement with activity, program worthwhile, company provision, improved morale, employee benefit, would participate, facility in building and executive/office personnel as related to the

job satisfaction index.

TABLE VII

JOB SATISFACTION INDEX COMPARED WITH AGE, PRESENT INVOLVEMENT WITH ACTIVITY, PROGRAM WORTHWHILE, COMPANY PROVISION, IMPROVED MORALE, EMPLOYEE BENEFIT, WOULD PARTICIPATE, FACILITY IN BUILDING AND EXECUTIVE/OFFICE PERSONNEL

COLUMN IDENTIFICATION CODE	CATEGORY	THOSE SATISFIED WITH JOB (%)	THOSE NEITHER SATISFIED NOR DISSATISFIED WITH JOB (%)	THOSE DISSATISFIED WITH JOB (%)
Age -				
Group One	15 - 25	47.8	36.5	15.7
Group Two	26 - 35	65.8	28.8	.5.4
Group Three	36 - 45	58.6	28.9	12.6
Group Four	46 and Over	66.6	19.6	13.9
Question 14 - Presently Involved with Activity	Yes	60.1	27.6	12.2
	No	57.9	31.0	11.1
Question 15 - Program Worthwhile	Agreed	87.3	89.4	77.6
Question 16 - Company Provision	Agreed	60.9	68.9	65.8
Question 17 - Improved Morale	Agreed	67.7	71.6	63.0
Question 19 - Employee Benefit	Agreed	84.9	85.9	77.3
Question 20 - Would Participate	Agreed	70.1	69.3	67.4
Question 21 - Facility in Building	Agreed	74.2	79.1	69.9
Job Classification	Executive	70.0	22.4	7.6
	Office	55.3	31.4	13.4

Discussion

The figures in Table VII revealed that group two (ages 26-35) appeared to be the most satisfied with their job. This group may feel that there are good chances for advancement. Also, the job classification comparison revealed that the executives are more satisfied with their jobs than are the office personnel. The rest of the comparisons did not reveal any significant differences but did indicate favourability toward activity facilities and programs being operated by companies.

In summary, differences in employee job satisfaction did not appear when comparisons were made with sex, present involvement with activity, company provision, improved morale, employee benefit, participation and facility in a building. Significant differences did appear for age, program worthwhile and executive/office comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XXXII).

The eighth hypothesis stated that the attitudes of the employees presently involved in some form of physical activity will not differ from those employees not presently involved in some form of physical activity. This hypothesis was formulated after reviewing Ibrahim (1969:76).

A comparison of activity involvement with geographic location indicated that 62.3% of those living in Western Canada were presently involved with some form of vigorous physical activity outside the company. Of those living in Eastern Canada, 56.3% were involved.

When activity involvement was compared with marital status, it showed that 62.8% of the single respondents were involved in physical activity. Of the married respondents, 60.6% were involved.

When activity involvement was compared with company size, 62.6% of the employees of a company with a small employee population (0-200) were involved in physical activity. Fifty-six point four percent (56.4%) of the employees of a medium-sized company (201-800) and 63.3% of the employees of a large company (801 and over) also indicated present involvement with physical activity.

A comparison of activity involvement with various cities revealed that 66.5% of the respondents living in Vancouver were involved in physical activity outside the company. Of the respondents living in Calgary, 59.1% were involved; Winnipeg 58.8%; Toronto 60.0%; Ottawa 53.7% and Montreal respondents were 55.9% involved with activity.

When activity involvement was compared with company type, 62.2% of the employees of the insurance companies indicated that they were presently involved with some form of vigorous physical activity. Results for the employees of other companies revealed the following: manufacturing 57.2%, public utilities 62.9%, petroleum 63.3%, government 53.7% and private 55.5%.

A comparison of activity involvement with various age groups revealed that 59.2% of the respondents in group one (ages 15-25) were involved in physical activity. Of the respondents in group two (ages 26-35), 61.3% were involved; 60.5% of the respondents in group three (ages 36-45) were involved and 60.6% of group four (age 46 and

over) respondents were also involved.

A comparison of activity involvement with executive/office personnel showed 69.5% of the executives were presently involved in some form of physical activity. Of the office personnel, 57.0% were involved.

A comparison of activity involvement and sex revealed 67.1% of the males and 68.0% of the females were presently involved in physical activity.

The comparisons with questions fifteen, sixteen, seventeen, nineteen and twenty-one are contained in the following table.

TABLE VIII

PRESENT INVOLVEMENT WITH ACTIVITY COMPARED WITH PROGRAM WORTHWHILE, COMPANY PROVISION, IMPROVED MORALE, EMPLOYEE BENEFIT AND FACILITY IN BUILDING

QUESTION	INVOLVE-MENT	STRONGLY AGREE (%)	AGREE (%)	NO OPINION (%)	OPPOSED (%)	STRONGLY OPPOSED (%)
15. Program Worthwhile	Yes	30.5	56.5	8.0	4.1	0.8
	No	24.1	62.5	8.0	4.8	0.6
16. Company Provision	Yes	18.1	47.9	19.1	13.0	1.8
	No	13.7	47.2	25.3	12.4	1.5
17. Improved Morale	Yes	20.4	50.6	19.1	9.0	1.0
	No	15.2	49.0	26.4	8.5	0.8
19. Employee Benefit	Yes	24.6	60.1	8.4	5.5	1.4
	No	18.5	65.1	10.7	4.8	0.8
21. Facility in Building	Yes	24.5	51.9	12.9	9.3	1.5
	No	17.7	55.4	16.4	9.3	1.3

Discussion

The figures in Table VIII indicated that an employee's present

involvement with activity did not have much bearing on their opinions regarding the presented questions. Thus it would appear that the concept of activity facilities and programs would be appreciated by most employees whether or not they are presently involved in activity.

When comparing activity involvement with willingness to participate in a program, 74.4% of those presently involved in activity would participate. Of those not involved in activity, 62.0% would participate.

A comparison of activity involvement with willingness to pay a fee indicated that 78.8% of those presently involved in activity were willing to pay a fee. Of those not involved in activity, 77.3% were willing to pay a fee.

A comparison of activity involvement with amount of monetary support revealed interesting differences.

TABLE IX

PRESENT ACTIVITY INVOLVEMENT AND FEE AMOUNT PER MONTH

INVOLVEMENT	0-$.50	$.51-1.00	$1.01-1.50	$1.51-2.00	$2.01-2.50
Yes	40.9%	21.9%	17.3%	15.2%	4.8%
No	27.9%	21.2%	21.7%	22.0%	7.2%

Discussion

The figures in Table IX indicated that those employees not presently involved in some form of physical activity were willing to spend more money per month for an activity facility and program than those employees presently involved in physical activity.

In summary, differences in activity involvement did not appear when comparisons were made with geographic location, marital status, company size and type, city, program worthwhile, company provision, employee benefit, facility in building and willingness to pay a fee. Significant differences did appear for age, sex, executive/office, improved morale, participation and amount per month comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XXXIII).

The ninth hypothesis stated that the employees will feel that a company should provide some form of a physical activity program. This hypothesis was formulated after previous research (Wanzel, 1971).

A comparison of company provision with geographic location revealed that 62.5% of those living in Western Canada and 68.5% of those living in Eastern Canada agreed that a company should provide some form of a physical activity program.

When company provision was compared with marital status, 66.0% of the single respondents felt that a company should provide an activity program. Of the married respondents, 62.8% were in favour.

When company provision was compared with company size, 66.8% of the employees of a company with a small employee population (0-200) felt that a company should provide some form of a physical activity program. Fifty-eight point nine percent (58.9%) of the employees of a medium-sized company (201-800) and 67.4% of the employees of a large company (801 and over) also indicated that a company should provide a physical activity program.

A comparison of company provision with various cities revealed

that there were differences among these cities. Of the respondents living in Vancouver, 68.2% agreed a company should provide a program. Results for the employees of other cities revealed the following: Calgary 50.0%, Winnipeg 69.0%, Toronto 72.7%, Ottawa 77.8% and Montreal 60.2%. Of the three Calgary companies, two were in the petroleum industry and perhaps they felt it would not be practical for a company to provide a program if they had employees at different job sites.

When company provision was compared with company type, 56.6% of the employees of the petroleum companies felt a company should provide physical activity programs. Results for the employees of other companies revealed the following: manufacturing 61.2%, public utilities 61.8%, private 62.6%, insurance 76.3% and government 77.8%. Government departments are presently providing some types of programs and this might have led to the higher agreement.

A comparison of company provision with various age groups indicated differences between individual age groups. Seventy-two point nine percent (72.9%) of the respondents in group one (ages 15-25) agreed a company should provide some type of an activity program. Of the respondents in group two (ages 26-35), 65.7% agreed; 61.5% of the respondents in group three (ages 36-45) agreed and 52.9% of the respondents in group four (age 46 and over) agreed. Group four might have felt, because of beliefs formed over a number of years, that it was not a company responsibility.

A comparison of company provision with executive/office personnel showed 66.3% of the office personnel agreed that a company should

provide some type of an activity program. Of the executives, 58.1% were in agreement.

A comparison of company provision and sex revealed that 61.0% of the males and 68.4% of the females agreed that a company should provide some type of an activity program.

In summary, differences in company provision did not appear when a marital status comparison was made. Significant differences did appear for geographic location, company size and type, city, age, sex and executive/office comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XXXIV).

The tenth hypothesis stated that the employees will feel that a physical recreation facility for company employees would improve company morale. This hypothesis was formulated after reviewing Wanzel (1971) and Brunner (1969:464).

A comparison of improved morale with geographic location revealed that 67.8% of those living in Western Canada agreed a company facility would improve morale. Of those living in Eastern Canada, 70.4% were in agreement.

When improved morale was compared with marital status, 70.2% of the single respondents indicated company facilities would lead to improved morale. Of the married respondents, 67.2% were in agreement.

When improved morale was compared with company size, 71.7% of the employees of a company with a small employee population (0-200) felt improved morale would result from a company activity facility. Sixty-seven point two percent (67.2%) of the employees of a medium-

sized company (201-800) and 67.2% of the employees of a large company (801 and over) were also in agreement.

A comparison of improved morale with various cities revealed that 71.2% of the respondents living in Vancouver agreed a company activity facility would improve morale. Results for the employees of other cities revealed the following: Calgary 63.4%, Winnipeg 67.6%, Toronto 83.6%, Ottawa 76.1% and Montreal 61.2%.

When improved morale was compared with company type, 72.8% of the employees of the insurance companies felt a company activity facility would improve morale. Results for the employees of other companies revealed the following: manufacturing 63.2%, public utilities 69.0%, petroleum 65.0%, government 76.1% and private 68.7%. The highest agreement, indicated by government employees, may be due to the fact that some government departments presently take part in fitness programs and this might have influenced those in other departments.

A comparison of improved morale and various age groups revealed that 73.4% of the respondents of group one (ages 15-25) felt a company activity facility would improve morale. Of the respondents in group two (ages 26-35), 70.6% agreed; 67.3% of the respondents in group three (ages 36-45) agreed and 60.4% of the respondents in group four (age 46 and over) agreed.

A comparison of improved morale and executive/office personnel showed that 69.1% of the office personnel were in agreement that a company activity facility would improve morale. Of the executives, 66.9% were in agreement.

A comparison of improved morale and sex revealed that 66.8% of

the males and 70.7% of the females felt that a company activity facility would improve morale.

In summary, differences in improved morale did not appear when a marital status comparison was made. Significant differences did appear for geographic location, company size and type, city, age, sex and executive/office comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XXXV).

The eleventh hypothesis stated that the employees would prefer a gymnasium if only one facility could be provided. This hypothesis was formulated after previous research (Wanzel, 1971).

Facility preference was identified through comparisons made with geographic location, marital status, company size, city, company type, age, executive/office and sex.

TABLE X

FACILITY PREFERENCE

COLUMN IDENTIFICATION CODE	TYPE PREFERRED		
	GYMNASIUM (%)	POOL (%)	COURTS (%)
Geographic Location			
-Western Canadians	53.8	35.1	11.1
-Eastern Canadians	53.5	36.4	10.1
Marital Status			
-Single	55.8	33.3	10.9
-Married	53.0	35.9	11.1
Company Size			
-Small (0-200)	46.8	36.9	16.3
-Medium (201-800)	50.4	39.6	10.0
-Large (801 and over)	53.0	36.7	10.2

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COLUMN IDENTIFICATION CODE	TYPE PREFERRED		
	GYMNASIUM (%)	POOL (%)	COURTS (%)
Cities			
-Vancouver	49.0	37.2	13.8
-Calgary	51.1	38.4	10.6
-Winnipeg	52.9	36.8	10.3
-Toronto	49.1	29.1	21.8
-Ottawa	41.6	47.5	10.9
-Montreal	56.4	36.9	6.7
Company Type			
-Insurance	56.2	32.1	11.7
-Manufacturing	54.9	38.5	6.6
-Public Utilities	51.3	37.8	11.0
-Petroleum	48.2	36.7	15.1
-Government	41.6	47.5	10.9
-Private	47.5	38.5	13.9
Age			
-Group One (15-25)	52.8	35.0	12.2
-Group Two (26-35)	48.3	34.8	16.9
-Group Three (36-45)	50.9	40.3	8.8
-Group Four (46 and Over)	50.0	43.7	6.3
Executive/Office			
-Executive	42.7	43.0	11.5
-Office	53.1	36.4	10.4
Sex			
-Male	47.5	38.7	13.8
-Female	55.3	36.7	7.9

Discussion

The figures in Table X indicated a definite respondent preference for a gymnasium followed by a pool and then court facilities. The respondents living in Toronto and Vancouver showed the highest percentages in favour of court facilities. These results might be explained by the fact that both cities already have a number of facilities with courts and more people may have been exposed to the court

games of racquetball, squash and handball.

In summary, differences in facility preference did not appear when comparisons were made with geographic location, marital status, company size and type and cities. Significant differences did appear for age, sex and executive/office comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XXXVI).

The twelfth hypothesis stated that the employees will still participate in the program if only a gymnasium is provided. This hypothesis was formulated after previous research (Wanzel, 1971).

A comparison of gymnasium only participation with geographic location indicated that 81.7% of those living in Western Canada were in favour of participating if only a gymnasium was provided. Of those living in Eastern Canada, 81.0% were in favour.

When gymnasium only participation was compared with marital status, 81.8% of the single respondents indicated they would still participate if only a gymnasium was provided. Of the married respondents, 81.1% were in favour of participating.

When gymnasium only participation was compared with company size, 83.7% of the employees of a company with a small employee population (0-200) were in favour of participating if only a gymnasium was provided. Eighty point two percent (80.2%) of the employees of a medium-sized company (201-800) and 79.4% of the employees of a large company (801 and over) also were in favour of participating.

A comparison of gymnasium only participation with various cities revealed that 82.7% of those respondents who lived in Vancouver were

in favour of participating if only a gymnasium was provided. Results for the employees of other cities revealed the following: Calgary 79.9%, Winnipeg 79.6%, Toronto 87.5%, Ottawa 79.0% and Montreal 78.1%.

When gymnasium only participation was compared with company type, 82.0% of the employees of the insurance companies indicated they would participate if only a gymnasium was provided. Results for the employees of other companies revealed the following: manufacturing 78.3%, public utilities 81.1%, petroleum 82.1%, government 79.0% and private 80.5%.

A comparison of gymnasium only participation with various age groups showed a number of differences.

TABLE XI

PARTICIPATION IF ONLY A GYMNASIUM PROVIDED AND AGE

AGE	WOULD PARTICIPATE (%)	WOULD NOT PARTICIPATE (%)	UNDECIDED (%)
Group One (15-25)	86.4	2.9	10.6
Group Two (26-35)	85.6	5.0	9.4
Group Three (36-45)	77.1	11.7	11.3
Group Four (46 and Over)	71.1	16.5	12.5

The figures in Table XI revealed that the older respondents were not as heavily in favour of participating as were the younger respondents if only a gymnasium was provided.

A comparison of gymnasium only participation with executive/office personnel showed 81.8% of the office personnel were in favour of participating if only a gymnasium was provided. Of the executives, 79.0%

were in favour.

A comparison of gymnasium only participation and sex revealed that 80.0% of the males and 82.1% of the females were in favour of participating if only a gymnasium was provided.

In summary, differences in gymnasium only participation did not appear when comparisons were made with marital status, company size and type, cities and executive/office. Significant differences did appear for geographic location, age and sex comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XXXVII).

The thirteenth hypothesis stated that the employees will view one hour of their working day devoted to physical activity as not resulting in a decrease in their previous daily production. This hypothesis was formulated after previous research (Wanzel, 1971).

Loss of job time due to activity and the effect on productivity was identified through comparisons made with geographic location, company size, city, company type, age, executive/office and sex.

TABLE XII

LOSS OF JOB TIME DUE TO ACTIVITY AND EFFECT ON PRODUCTIVITY

COLUMN IDENTIFICATION CODE	DEFINITE EFFECT (%)	NO EFFECT (%)	UNDECIDED (%)
Geographic Location			
-Western Canadians	19.8	64.1	16.1
-Eastern Canadians	21.1	66.1	12.8

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COLUMN IDENTIFICATION CODE	DEFINITE EFFECT (%)	NO EFFECT (%)	UNDECIDED (%)
Company Size			
-Small (0-200)	12.8	75.2	12.0
-Medium (201-800)	19.2	64.2	16.5
-Large (801 and Over)	19.4	63.5	17.1
Cities			
-Vancouver	18.4	68.6	13.0
-Calgary	17.8	64.4	17.8
-Winnipeg	15.2	63.8	21.0
-Toronto	7.1	83.9	8.9
-Ottawa	20.8	62.3	17.0
-Montreal	21.8	66.0	12.2
Company Type			
-Insurance	15.8	62.6	21.6
-Manufacturing	20.6	65.6	13.8
-Public Utilities	20.8	62.9	16.3
-Petroleum	14.8	72.4	12.8
-Government	20.8	62.3	17.0
-Private	11.0	74.0	15.0
Age			
-Group One (15-25)	10.7	72.8	16.4
-Group Two (26-35)	15.4	69.4	15.1
-Group Three (36-45)	20.1	61.5	18.4
-Group Four (46 and Over)	27.0	59.8	13.2
Executive/Office			
-Executive	22.0	65.2	12.7
-Office	16.2	67.1	16.7
Sex			
-Male	20.3	64.6	15.1
-Female	13.6	69.7	16.7

Discussion

The figures in Table XII showed that a decrease in productivity if one hour of the working day was devoted to physical activity would appear not to be the case. Respondents who lived in Toronto were very much agreed with this statement. However, the Toronto sample con-

sisted of a firm involved in selling and perhaps they felt one hour of their day devoted to physical activity would not affect their daily sales, nor their related office work.

In summary, differences in opinion toward productivity did not appear when comparisons were made with geographic location and company type. Significant differences did appear for company size, city, age, sex and executive/office comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XXXVIII).

The fourteenth hypothesis stated that for all comparisons made, the attitudes of the Eastern Canadian employees will not differ from the attitudes of the Western Canadian employees. This hypothesis was formulated after previous research (Wanzel, 1971).

Attitudes according to geographic location were identified through comparisons made with program worthwhile, company provision, improved morale, family involvement, employee benefit and facility in building.

TABLE XIII

GEOGRAPHIC LOCATION COMPARISONS

RELATED QUESTIONS	GEOGRAPHIC LOCATION	STRONGLY AGREE (%)	AGREE (%)	NO OPINION (%)	OPPOSED (%)	STRONGLY OPPOSED (%)
#15. Program Worthwhile	West	25.6	61.2	7.8	4.7	0.7
	East	35.8	51.1	8.3	4.0	0.9
#16. Company Provision	West	15.2	47.3	22.9	13.2	1.4
	East	22.3	46.2	17.4	11.6	2.4

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RELATED QUESTIONS	GEOGRAPHIC LOCATION	STRONGLY AGREE (%)	AGREE (%)	NO OPINION (%)	OPPOSED (%)	STRONGLY OPPOSED (%)
#17. Improved Morale	West	16.9	50.9	23.0	8.5	0.7
	East	24.8	45.6	19.0	9.2	1.5
#18. Family Involvement	West	9.3	42.3	28.6	18.1	1.8
	East	11.9	38.2	25.7	19.3	4.9
#19. Employee Benefit	West	21.0	64.0	8.8	5.4	0.8
	East	27.8	55.0	10.4	4.6	2.1
#21. Facility in Building	West	21.2	55.6	13.8	8.5	0.9
	East	26.0	45.3	15.0	11.0	2.8

Discussion

The figures in Table XIII revealed that geographic location comparisons for the various questions were very similar. There appeared to be a favourable response toward the proposals contained within the questions. An interesting result was that more of the respondents who lived in Eastern Canada (24.2%) were opposed to family involvement than the respondents who lived in Western Canada (19.9%). This might be explained by the fact that those living in Eastern Canada, generally, have to travel a further distance to their place of work and that it would be too inconvenient to transport families to a downtown facility.

A comparison of geographic location with the question related to participation in a program indicated that 70.5% of those living in Western Canada and 68.2% of those living in Eastern Canada would participate in such a program.

A comparison of geographic location with the question related to

willingness to pay a fee showed 78.3% of those living in Western Canada and 79.8% of those living in Eastern Canada were willing to pay a fee for the use of a facility.

When geographic location was compared to the question related to the amount of monetary support per month, it was revealed that there were no significant differences between respondents who lived in Western or Eastern Canada.

TABLE XIV

MONETARY SUPPORT PER MONTH AND GEOGRAPHIC LOCATION

GEOGRAPHIC LOCATION	0-$.50 (%)	$.51-1.00 (%)	$1.01-1.50 (%)	$1.51-2.00 (%)	$2.01-2.50 (%)
West	49.7	17.7	14.9	13.0	4.7
East	52.9	13.8	13.8	16.2	3.4

In summary, differences in geographic location did not appear when comparisons were made with participation, payment of a fee and amount per month of monetary support. Significant differences did appear for activity programs are worthwhile, company provision, improved morale, family involvement, employee benefit and facility in a building comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XXXIX).

The fifteenth hypothesis stated that for all comparisons made the attitudes of the employees will not vary according to the cities in which they reside. This hypothesis was formulated after previous

research (Wanzel, 1971).

Attitudes according to city of residence were identified through comparisons made with program worthwhile, company provision, improved morale, employee benefit, participation and facility in building.

TABLE XV

VARIOUS COMPARISONS WITH SIX CANADIAN CITIES

RELATED QUESTIONS	RESPONDENTS IN AGREEMENT (%)					
	VANCOUVER	CALGARY	WINNIPEG	TORONTO	OTTAWA	MONTREAL
#15. Program Worthwhile	89.2	82.3	88.8	85.5	88.1	86.2
#16. Company Provision	68.2	50.0	69.0	72.7	77.8	60.2
#17. Improved Morale	71.2	63.4	67.6	83.6	76.1	61.2
#19. Employee Benefit	88.1	80.8	85.2	89.1	86.1	78.1
#20. Participation	75.4	65.0	68.8	83.6	63.6	65.2
#21. Facility in Building	80.9	70.3	78.7	87.3	74.3	63.2

Discussion

The figures in Table XV revealed that there were significant differences between the respondents who resided in various cities in their attitudes toward the proposals contained within the questions. These differences might be attributed to the specific nature of the companies involved or to present availability of activity facilities and programs.

A comparison of city of residence with the question related to

willingness to pay a fee revealed that 76.1% of those respondents who lived in Vancouver were willing to pay a fee for the use of a facility. Results for the other cities are as follows: Calgary 76.3%, Winnipeg 83.2%, Toronto 89.1%, Ottawa 77.8% and Montreal 77.1%.

A comparison of city of residence with the question related to the amount of monetary support per month revealed significant differences between cities.

TABLE XVI

MONETARY SUPPORT PER MONTH

CITY	0-$.50 (%)	$.51-1.00 (%)	$1.01-1.50 (%)	$1.51-2.00 (%)	$2.01-2.50 (%)
Vancouver	40.4	20.9	16.2	16.2	6.1
Calgary	29.9	27.3	21.2	17.3	4.3
Winnipeg	31.6	20.7	21.8	17.2	8.6
Toronto	57.1	6.1	14.3	20.4	2.0
Ottawa	32.1	17.3	18.5	24.7	7.4
Montreal	36.1	23.0	18.9	18.9	3.3

Discussion

The figures in Table XVI revealed that Toronto respondents, who in the majority favoured many other benefits, appeared less inclined to financially support the proposals.

In summary, significant differences in city of residency did appear when comparisons were made with programs worthwhile, company provision, improved morale, employee benefit, participation, facility in building, willingness to pay a fee and amount of monetary support

per month.

Statistical information related to this hypothesis can be found in Appendix B (see Table XL).

The sixteenth hypothesis stated that for all comparisons made the attitudes of the employees will not vary according to the different types of companies. This hypothesis was formulated after previous research (Wanzel, 1971).

Attitudes of respondents employed by different types of companies were identified through comparisons made with program worthwhile, company provision, improved morale, employee benefit, participation, facility in building and willingness to pay a fee.

TABLE XVII

VARIOUS COMPARISONS WITH DIFFERING TYPES OF COMPANIES

RELATED QUESTIONS	RESPONDENTS IN AGREEMENT (%)					
	INSURANCE	MANUFACTURING	PUBLIC UTILITIES	PETROLEUM	GOVERNMENT	PRIVATE
#15. Program Worthwhile	93.1	86.0	88.2	83.1	88.1	82.8
#16. Company Provision	76.3	61.2	61.8	56.6	77.8	62.6
#17. Improved Morale	72.8	63.2	69.0	65.0	76.1	68.7
#19. Employee Benefit	86.8	78.2	86.4	83.4	86.1	85.2
#20. Participation	70.6	65.8	69.6	72.3	63.6	73.2
#21. Facility in Building	80.5	63.7	75.7	77.6	74.3	80.5
#22. Willing to Pay a Fee	85.8	77.8	76.6	75.1	77.8	82.8

Discussion

The figures in Table XVII showed that there were some significant differences between employees of different types of companies in their attitudes toward the proposals contained within the questions. The question concerning the company provision of a program might have provided variance due to lack of specific information regarding type of program and amount of company control.

A comparison of company type with the question related to amount of monetary support per month revealed a similarity regarding amount of monetary support per month.

TABLE XVIII

MONETARY SUPPORT PER MONTH AND TYPE OF COMPANY

TYPE OF COMPANY	0-$.50 (%)	$.51-1.00 (%)	$1.01-1.50 (%)	$1.51-2.00 (%)	$2.01-2.50 (%)
Insurance	30.5	23.7	22.0	17.8	5.9
Manufacturing	34.2	21.5	22.1	18.8	3.4
Public Utilities	34.7	25.0	18.4	16.7	5.2
Petroleum	38.3	23.3	16.1	16.6	5.7
Government	32.1	17.3	18.5	24.7	7.4
Private	44.8	10.5	18.1	18.1	8.6

In summary, differences in company type did not appear when comparisons were made with participation and amount of monetary support per month. Significant differences did appear for program worthwhile, company provision, improved morale, employee benefit, facility in building and willingness to pay a fee comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XLI).

The seventeenth hypothesis stated that the attitudes of the office personnel toward physical activity facilities and programs will not differ from the attitudes of those who have managerial responsibilities. This hypothesis was formulated after reviewing Dowell (1967:719).

Attitudes of executive/office personnel were identified through comparisons made with program worthwhile, company provision, improved morale, employee benefit, participation, facility in building and willingness to pay a fee.

TABLE XIX

VARIOUS COMPARISONS WITH EXECUTIVE OR OFFICE PERSONNEL

RELATED QUESTIONS	RESPONDENTS IN AGREEMENT (%)	
	OFFICE	EXECUTIVE
#15. Program Worthwhile	87.6	85.6
#16. Company Provision	66.3	58.1
#17. Improved Morale	69.1	66.9
#19. Employee Benefit	86.1	80.8
#20. Participation	71.0	67.9
#21. Facility in Building	77.4	69.8
#22. Willing to Pay a Fee	80.2	75.9

Discussion

The figures in Table XIX revealed that the office personnel were slightly more in agreement with these questions than were the execu-

tives. To some extent the executives must be conscious of financial repercussions and this might explain, in part, the differences noted. In regard to the question related to participation the executives were less in favour of participating than the office personnel, possibly because of a lack of available time. This appears unfortunate as they, in many cases, would benefit from a physical activity program.

A comparison of executive/office personnel with the question related to the amount of monetary support per month revealed interesting differences.

TABLE XX

MONETARY SUPPORT PER MONTH AND EXECUTIVE/OFFICE PERSONNEL

EXECUTIVE/OFFICE	0-$.50 (%)	$.51-1.00 (%)	$1.01-1.50 (%)	$1.51-2.00 (%)	$2.01-2.50 (%)
Office	27.2	22.4	21.9	21.3	7.2
Executive	59.3	19.1	11.0	8.5	2.0

The figures in Table XX seemed to indicate that the executives did not value exercise much, at least in relation to the amount of money they were willing to spend each month to support a facility. Contributions that office personnel would make were fairly well divided up to an amount of two dollars.

In summary, differences in executive/office personnel did not appear when comparisons were made with program worthwhile and willingness to pay a fee. Significant differences did appear for company provision, improved morale, employee benefit, participation, facility

in building and amount of monetary support per month comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XLII).

The eighteenth hypothesis stated that for all comparisons made the attitudes of the employees will not vary according to the different employee population sizes. This hypothesis was formulated after previous research (Wanzel, 1971).

Attitudes of respondents employed in varying sizes of companies were identified through comparisons made with program worthwhile, company provision, improved morale, employee benefit, participation, facility in building and willingness to pay a fee.

TABLE XXI

VARICUS COMPARISONS WITH DIFFERING SIZES OF COMPANIES

RELATED QUESTIONS	RESPONDENTS IN AGREEMENT (%)		
	SMALL POPULATION 0-200 EMPLOYEES	MEDIUM POPULATION 201-800 EMPLOYEES	LARGE POPULATION OVER 800 EMPLOYEES
#15. Program Worthwhile	86.4	85.2	88.6
#16. Company Provision	66.8	58.9	67.4
#17. Improved Morale	71.7	67.2	67.2
#19. Employee Benefit	85.3	84.8	83.2
#20. Participation	76.1	67.0	68.3
#21. Facility in Building	79.1	75.9	71.9
#22. Willingness to Pay a Fee	78.6	78.4	78.1

The figures in Table XXI showed that employees of varying sizes of companies were in close agreement with the proposals contained within the questions.

A comparison of company size with the question related to amount of monetary support per month revealed no significant differences.

TABLE XXII

MONETARY SUPPORT PER MONTH AND DIFFERING SIZES OF COMPANIES

SIZE OF COMPANY	0-$.50 (%)	$.51-1.00 (%)	$1.01-1.50 (%)	$1.51-2.00 (%)	$2.01-2.50 (%)
Small (0-200)	40.7	17.3	20.1	16.8	5.1
Medium (201-800)	33.2	22.4	17.9	19.5	7.1
Large (801 and Over)	35.6	23.5	19.4	17.1	4.4

In summary, differences related to size of company did not appear when comparisons were made with participation, willingness to pay a fee and amount of monetary support per month. Significant differences did appear for program worthwhile, company provision, improved morale, employee benefit and facility in building comparisons.

Statistical information related to this hypothesis can be found in Appendix B (see Table XLIII).

The nineteenth hypothesis stated that the attitudes of the employees toward physical activity facilities and programs will not vary significantly by sex. This hypothesis was formulated after reviewing Wanzel (1971), Cameron (1935:96), and McPherson and Yuhasz (1968:218).

Attitudes of respondents according to sex were identified

through comparisons made with program worthwhile, company provision, improved morale, family involvement, employee benefit, participation, facility in building and willingness to pay a fee.

TABLE XXIII

ACTIVITY ATTITUDES RELATED TO SEX

RELATED QUESTIONS	RESPONDENTS IN AGREEMENT (%)	
	MALE	FEMALE
#15. Program Worthwhile	85.4	88.8
#16. Company Provision	61.0	68.4
#17. Improved Morale	66.8	70.7
#18. Family Involvement	48.9	51.4
#19. Employee Benefit	83.0	86.3
#20. Participation	70.7	68.0
#21. Facility in Building	72.7	79.1
#22. Willingness to Pay a Fee	76.1	82.0

The figures in Table XXIII revealed varying acceptance by the sexes toward the proposals contained within the questions. However, both males and females still revealed a definite general acceptance of the various ideas presented.

A comparison of sex with the question related to amount of monetary support per month revealed interesting differences.

TABLE XXIV

MONETARY SUPPORT PER MONTH AND SEX

SEX	0-$.50 (%)	$.51-1.00 (%)	$1.01-1.50 (%)	$1.51-2.00 (%)	$2.01-2.50 (%)
Male	47.2	22.7	15.5	11.2	3.4
Female	18.4	19.8	24.4	28.2	9.2

The figures in Table XXIV showed that the females were willing to spend more money per month than the males in support of a facility.

The average amount of money per month and per year for the 563 males and 369 females who were willing to pay a fee are shown in the following table.

TABLE XXV

PROJECTED CONTRIBUTORY AVERAGE ACCORDING TO SEX

SEX	MONEY CATEGORY	NUMBER OF RESPONDENTS	ASSUMED MEAN AMOUNT	PROJECTED TOTAL	
Male	0-$ .50	266	$ .25	$ 66.50/month	TOTAL $424.25/month
	$ .51-$1.00	128	$ .75	$ 96.00/month	for 563 employees
	$1.01-$1.50	87	$1.25	$108.75/month	or $5,091.00/year
	$1.51-$2.00	63	$1.75	$110.25/month	
	$2.01-$2.50	19	$2.25	$ 42.75/month	$\frac{\$424.25}{563}$ = .75¢/month/
		563		$424.25/month	male employee
Female	0-$ .50	68	$ .25	$ 17.00/month	TOTAL $442.75/month
	$ .51-$1.00	73	$ .75	$ 54.75/month	for 369 employees
	$1.01-$1.50	90	$1.25	$112.50/month	or $5,313.00/year
	$1.51-$2.00	104	$1.75	$182.00/month	
	$2.01-$2.50	34	$2.25	$ 76.50/month	$\frac{\$442.75}{369}$ =$1.20/month/
		369		$442.75/month	female employee

In summary, significant differences did appear when comparisons were made with program worthwhile, company provision, improved morale, family involvement, employee benefit, participation, facility in building and willingness to pay a fee.

Statistical information related to this hypothesis can be found in Appendix B (see Table XLIV).

The twentieth hypothesis stated that for all comparisons made the attitudes of the employees will not vary by age. This hypothesis was formulated after reviewing Wanzel (1971), Gloss (1938:138), Baley (1955:1), Zborowski (1962:302) and Campbell (1969:266).

Attitudes of respondents according to age were identified through comparisons made with program worthwhile, company provision, improved morale, family involvement, employee benefit, participation, facility in building and willingness to pay a fee.

TABLE XXVI

ACTIVITY ATTITUDES RELATED TO AGE

RELATED QUESTIONS	RESPONDENTS IN AGREEMENT (%)			
	GROUP ONE AGES 15-25	GROUP TWO AGES 26-35	GROUP THREE AGES 36-45	GROUP FOUR AGE 46 AND OVER
#15. Program Worthwhile	92.4	88.6	85.3	79.2
#16. Company Provision	72.9	65.7	61.5	52.9
#17. Improved Morale	73.4	70.6	67.3	60.4
#18. Family Involvement	57.1	47.5	45.1	48.1
#19. Employee Benefit	89.5	87.4	81.4	77.2

... continued on 97

RELATED QUESTIONS	RESPONDENTS IN AGREEMENT (%)			
	GROUP ONE AGES 15-25	GROUP TWO AGES 26-35	GROUP THREE AGES 36-45	GROUP FOUR AGE 46 AND OVER
#20. Participation	75.5	71.1	67.8	62.2
#21. Facility in Building	81.0	78.4	74.1	65.5
#22. Willingness to Pay a Fee	84.7	81.5	75.1	69.6

Discussion

The figures in Table XXVI revealed that there was a greater acceptance of the proposals contained within the questions by the younger age groups than by the older age groups. Proposal acceptance would appear to decrease as age increases. However, group four (age 46 and over) still showed a substantial acceptance of the ideas presented.

A comparison of age with the question related to amount of monetary support per month revealed certain differences between age groups.

TABLE XXVII

MONETARY SUPPORT PER MONTH AND AGE

AGE	0-$.50 (%)	$.51-1.00 (%)	$1.01-1.50 (%)	$1.51-2.00 (%)	$2.01-2.50 (%)
15-25 yrs.	21.2	21.9	24.7	24.7	7.6
26-35 yrs.	39.2	21.6	20.5	13.1	5.6
36-45 yrs.	41.9	22.3	15.6	16.2	3.9
46 and over	46.7	20.6	11.6	16.6	4.5

The figures in Table XXVII showed that the younger age groups were willing to spend more money per month on a facility and program than were those in the older age groups.

In summary, significant differences did appear when comparisons were made with program worthwhile, company provision, improved morale, family involvement, employee benefit, participation, facility in building and willingness to pay a fee.

Statistical information related to this hypothesis can be found in Appendix B (see Table XLV).

Canadian and American Senior Management Views

A personal interview sheet (see Appendix C) was administered to senior corporate management in both Canada and the U.S.A. The collective opinions for some selected questions, which might provide insight as to North American corporate management philosophy regarding industrial recreation are described as follows:

Question: Does the company have any recreational facilities? If so, what are they?

Nine out of fifteen Canadian companies did not have facilities. Two companies had strictly recreational rooms for retired employees. Four of the companies provided club memberships for some of their employees. Of the companies surveyed in the United States, all had their own corporate facilities.

Question: Is your company aware of the increasing evidence that physical activity may decrease many problems such as cardiovascular disease, absenteeism, boredom, fatigue and stress associated with the job?

About eighty percent of Canadian management was aware of the increasing evidence. Management of two companies felt the evidence has not been conclusively proven and thus they did not consider it. American management was very aware of the evidence and it was a prime determinant of their inclusion of facilities in their buildings.

Question: Does your company feel that the varied concepts of job satisfaction and high morale are important for the efficiency of the company? If so, in what way?

Job satisfaction was considered to be extremely important by Canadian management. They felt stress must be put on making the job meaningful for the individual. This appeared to be more important than monetary considerations. Work environment and employer-employee relationships are also important. American management indicated they felt that their physical activity facilities had added to job satisfaction and morale.

Question: Do you feel that job satisfaction and morale would increase if a physical activity facility and programs were introduced for your employees and executives?

Canadian management felt it would be a popular move for the corporate image, but pointed out that they felt employees in our society do not accept a paternalistic attitude from the company. Many felt there would be increases but only if a properly presented program was introduced and enthusiasm did not wane. They agreed that the facility and program must be tied to job satisfaction to be successful.

Question: Many companies in the United States, indeed around the world, offer physical activity programs and facilities for their employees as a part of their fringe benefit program. These companies feel the program

is extremely beneficial to their operation. Could you make any suggestions as to why your company, or any Canadian company has not implemented facilities and programs such as these?

The major comment here was that cost of implementation and yearly maintenance would be too great when related to questionable returns on the investment. Canadian management seemed to feel that the Canadian employee was affluent and could join any of the numerous private facilities. Many did not wish to invoke parental direction, others felt that the facility would not be used extensively. Some executives felt that the Canadian "character" argued against implementation as Canada was not much of a "jock strap" nation. Some singular opinions were: no one else has done it, why should we, are there suitable activities for all ages; what if you plan for the wrong (unpopular) activities; the employees aren't pushing for it, so they must not want it; senior management has to want it first. Others felt that they had too many employees to organize it effectively, priority went to other areas, hard to justify to the stockholders and was it fair if the company had field employees who couldn't participate.

Question: Do you think your company would consider building physical activity facilities if the employees demonstrated that they would contribute financially to the support of such a program?

Canadian management, as did American management, felt this was not a consideration. Some indicated that better tax concessions were needed for this type of project. Many of the smaller companies felt that they would be better off financially to just pay the cost of membership in a private facility.

QUESTION: What feelings do you have regarding the negative aspects of a company operating facilities and programs for their employees?

Once again cost and amount of usage were deemed important as was the question of liability. Most of the Canadian management personnel felt they wanted to be the same as their competitors in their fringe benefit "package". American management, on the other hand, indicated that they were always trying to improve their fringe benefit "package". Some Canadian executives wondered whether sufficient time would be available during the working day to permit many of the management group to engage in such a program. A few felt that participation might be used as a lever for advancement and this would not be acceptable.

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CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary and Conclusions

The purpose of this study was to analyze the attitudes of "white-collar" employees, involved in varying types of occupations in major Canadian business centers, toward participation in a supervised recreation and fitness program.

In addition, the concept of having a fitness facility contained within an office structure and available to the company employees was explored.

A number of research hypotheses were formulated which related employee attitudes to geographic location, marital status, job satisfaction, company size and type, various cities, age, occupational position and sex.

Seventeen hundred and twenty-five questionnaires were distributed to respondents chosen by random sample from twelve Canadian companies' total employee populations. Of the 1,725 individuals who received questionnaires, completed replies were received from 1,213 (70.3%); 747 (61.6%) were males and 466 (38.4%) were females.

Of the twelve companies studied, six distinct types were categorized as insurance, petroleum, manufacturing, public utilities, government and private.

Companies located in six Canadian cities namely Vancouver, Calgary, Winnipeg, Toronto, Ottawa and Montreal were involved in the study.

The twelve companies were divided into three classifications according to employee populations: up to 200 employees, 201-800 employees and 801 employees and over.

Of the total number of respondents, 28.2% were in age group one (15-25), 27.5% were in age group two (26-35), 19.8% were in age group three (36-45) and 24.5% were in age group four (46 and over). Seventy-one point nine percent were office personnel and 28.1% were executives.

Desirability of a Compulsory Program

Certain results indicated this type of program was desirable and that there was a willingness to participate. Respondent comparisons made between the question of a compulsory program with geographic location, marital status, company size, executive/office personnel, or job satisfaction respectively did not reveal any significant differences.

Differences in agreement that a compulsory program was desirable, were noted for respondents in individual cities ranging from Calgary, which was the lowest at 43.0% to the highest, which was Ottawa where 55.6% agreed.

Company type, age and sex comparisons indicated slight differences. The company type comparison ranged from the lowest, which was petroleum at 40.9% to the highest, which was government with 55.6% of respondents agreed that a compulsory program was desirable. The age comparison ranged from age group four (46 and over), 41.7% agreed, to age group one (15-25), 56.6% agreed. Forty-eight point five

percent of the males and 48.7% of the females were in favour while 39.1% of the males and 34.7% of the females were opposed to such a program.

The compulsory question when compared with the respondents present involvement with activity indicated that those involved in activity were 50.9% in accord and those not involved in activity were 45.1% agreed a compulsory program was desirable.

It can be concluded from the results, that Canadian employee attitudes showed a definite inclination toward accepting a compulsory program if physical activity is presented in a professional manner. This, of course, is an exciting possibility for improving the fitness of Canadians but certainly places the onus on corporate management and the Canadian government for implementation.

Participation in Physical Activity

To a large extent the respondents indicated that they would be willing to participate in some form of physical activity. Geographic location, marital status, company size and type and job satisfaction comparisons appeared to have little effect on the responses received.

There was a difference in the respondents agreement when various cities were compared; Ottawa was the lowest with 63.6% in favour and Toronto was the highest with 83.6%. The age comparison showed a difference in agreement as those ages 46 and over were the lowest with 62.2% in favour and the youngest age group (15-25) was the highest with 75.5%. The executive/office comparison indicated that office personnel were 71.0% in favour and 8.8% opposed and executives were

were 67.9% in favour and 16.2% opposed. The sex comparison revealed males were 70.7% in favour and 12.6% opposed and females were 68.0% in favour and 8.7% opposed.

It could be concluded from these results that Canadians are indeed, interested in participating in some form of a physical activity program. It should be a challenge for the physical education profession to prepare, package and present suitable and interesting programs which will motivate people to become involved.

Monetary Support

The respondents felt that having a facility contained within a company's office building was desirable and worth paying a fee. The average amount of monetary support per month per employee for a facility was .98¢.

It was concluded from these results that having a facility contained within a company's office building would indeed be desirable from an employee's point of view. Whatever amount employees were willing to spend per month would still be beneficial in terms of helping to defray costs. The amount of monetary support was difficult to ascertain at this time as the respondents were not aware of the exact terms of reference for a facility.

Family Involvement

Results showed that 51.6% of the Western Canadians and 50.1% of the Eastern Canadians felt it was worthwhile to have their families involved in an activity program.

The marital status comparison showed single respondents to be 47.0% agreed and married respondents 51.9% agreed. Respondents with children were 50.7% agreed and those respondents without children were 51.8% agreed. The age comparison revealed that age group one (15-25) respondents were 57.1% in favour, which was the highest, and age group three (36-45) respondents were 45.1% in favour, which was the lowest. Office personnel were 50.5% in favour and executives were 47.8% in favour. The job satisfaction comparison indicated that the satisfied respondents were 52.0% in favour; dissatisfied respondents were only 37.7% in favour. Male respondents were 48.9% in favour and female respondents were 51.4% in favour.

It was concluded from these results that family involvement through the use of company facilities was recognized to be worthwhile but certainly not to an overwhelming extent. Thus Canadian management would not necessarily have to plan from the beginning to include families in their facilities and programs.

Facility Distribution Load - Period of the Day

In terms of sex, age, executive/office and geographic location comparisons, there was a fairly even distribution of respondents throughout the whole day for employee "work-out" periods. There were at least 25.8% of the respondents participating at any given hour between 8:00 a.m. and 5:00 p.m. when first choices were considered. No one time period was overcrowded.

It was concluded from these results that it would seem to be extremely feasible, in terms of a workable distribution load, to operate

a facility and program. Management would not be faced with overcrowding of the facilities. The results indicated that administratively, allowing employees to participate during working hours, would be ideal in terms of facility management.

Facility Distribution Load - Days of the Week

In terms of sex, executive/office and age comparisons there was a fairly even distribution throughout the working week for an employee "work-out" preference regarding days. At least 34.0% of the respondents would be participating on any given day from Monday through Friday. Keeping in mind that some employees will want to "work-out" anywhere from one to five times a week, no one day was overcrowded.

It was concluded from these results that it would seem extremely feasible, in terms of a workable distribution load, to operate a facility and program. The results indicated that the facility could be in use every day of the working week and still operate efficiently.

Job Satisfaction

Eighty-seven point three percent of the respondents who were satisfied with their job agreed that a physical activity program was worthwhile; dissatisfied respondents were 77.6% in agreement.

Satisfied respondents were 60.9% in agreement that a company should provide some form of a physical activity program; dissatisfied respondents were 65.8% in agreement.

Satisfied respondents were 67.7% in accord that a fitness facility for company employees would improve morale; dissatisfied respond-

ents were 63.0% in accord.

Satisfied respondents were 84.9% agreed that a physical activity program operated as an employee benefit was desirable; dissatisfied respondents were 77.3% agreed.

Satisfied respondents were 70.1% in agreement that they would participate in such a program; dissatisfied respondents were 67.4% in agreement.

Satisfied respondents were 74.2% in accord that having a fitness facility contained within their building would be desirable; dissatisfied respondents were 69.9% in accord.

It can be concluded from these results that satisfaction or dissatisfaction with the job does not contribute to any appreciable differences in agreement. The main concepts seem to be approved of by both types of respondents, thus fitness facilities and programs could not be said to improve dissatisfaction with the job any more than satisfaction with the job.

Present Activity Involvement Bearing on Attitudes

Comparisons with geographic location, marital status, company size and type, cities, was a program worthwhile, should a company provide a program, a program as an employee benefit, having a facility contained within a building and willingness to pay a fee, all showed favourable attitudes but no significant differences in agreement.

Respondents presently involved in activity were 71.0% in agreement that an activity program would improve company morale; respond-

ents not involved in activity were 64.2% in agreement. Also, those respondents presently involved in activity were 74.4% in favour of participation; respondents not involved in activity were 62.0% in favour.

It was concluded from these results that employees accepted the concepts of activity facilities and programs to a large extent whether they were presently involved in activity or not. This should indicate to management there are others than just the employees who have already developed an interest in fitness who would want to have a facility and programs.

Company Provision for Physical Activity

The comparison with geographic location showed that the Western Canadians were 62.5% in agreement that a company should provide some form of an activity program; 68.5% of the Eastern Canadians were in agreement.

The company size comparison varied in agreement from 58.9% (medium size) to 67.4% (large).

The comparison with the residents of various cities ranged from Calgary respondents who were only 50.0% agreed to Ottawa respondents who were 77.8% in accord with company provision of activity programs.

The company type comparison revealed the petroleum industry was the lowest in agreement with 56.6%; the highest was the government with 77.8% agreed.

The age comparison showed age group one (15-25) were 72.9% agreed but age group four (46 and over) were only 52.9% in agreement.

Office personnel were 66.3% in accord while executives were 58.1% in accord.

Males were 61.0% in agreement that a company should provide a program and females were 68.4% in agreement.

Results indicated that many respondents felt that a company should provide some form of a physical activity program. Many questions are still unanswered such as the morale factor if head office employees have a program and employees in branch offices do not. These results should at least cause Canadian corporations to attempt to discover the feasibility of such programs for their office buildings.

Relationship of Physical Activity Facilities to Company Morale

The geographic location comparison indicated that 67.8% of the Western and 70.4% of the Eastern Canadians were agreed that a facility would improve company morale.

The comparison with the different cities showed variance in agreement from a low of 61.2% (Montreal), to a high of 83.6% (Toronto).

The comparison with company type ranged in agreement from a low of 63.2% (manufacturing), to a high of 76.1% (government).

The age comparison showed varied opinions as group one (15-25) was 73.4% in agreement and group four (46 and over) was 60.4% in agreement that company morale would improve. Office personnel were 69.1% in accord while executives were 66.9% in accord. Males were 66.8% in agreement and 12.0% opposed and females were 70.7% in agreement and 5.8% opposed.

An important conclusion is that company morale was perceived to be increased if employees were to have a facility for physical activity. This would tend to support studies presented in Chapter Two under employee recreation as a fringe benefit (see pages 28-33).

Type of Facility Preferred

For all the comparisons, geographic location, marital status, company size and type, cities, age, sex and executive/office, a gymnasium was most preferred followed by a pool and then courts.

It can be concluded from these results that a company would still meet with a favourable response from employees if they were to only provide a gymnasium type facility. Thus space and cost requirements would be smaller and this would increase the feasibility of such a facility. As well, the results for all the comparisons showed a very impressive willingness to participate if only a gymnasium was provided.

Loss of Job Time Due to Activity and Effect on Productivity

The comparisons indicated that at least 60% of the respondents felt that their previous daily production would not decrease if they exercised during office hours.

It can be concluded from these results that a definite possibility exists that physical activity programs could be offered throughout the working day without negatively affecting productivity. Programs of this nature would enhance the motivation of the employees to join and then remain with the program. These results would allow

for a less crowded facility if employees were scheduled properly.

Geographic Location

Western Canadians were 86.8% agreed that an organized physical activity program was worthwhile; Eastern Canadians were 86.9% agreed.

Both Eastern and Western Canadians were in favourable agreement with all of the presented concepts with slight differences appearing at times, in degree of opposition to the concepts.

It can be concluded from these results that to a large extent employee attitudes generally do not vary geographically. These results, of course, would allow corporations, in at least any of the cities studied, to investigate the possibility of incorporating facilities and programs into their office buildings.

Cities Involved in the Study

Certain differences in agreement between cities were noticed. For example, Calgary respondents were 82.3% in agreement that activity programs are worthwhile, which was the lowest; Vancouver respondents were 89.2% in agreement, which was the highest.

Montreal respondents were 63.2% agreed that a fitness facility in a company building was worthwhile, which was the lowest; Toronto respondents were 87.3% agreed, which was the highest.

It can be concluded from these results that all the cities are in agreement with the concepts, but some more so than others. Thus some corporations, depending on the city, might experience more acceptance of their programs than corporations in other cities.

Company Types

Certain differences in agreement between companies were noticed. Private company employees were 82.8% in agreement that activity programs are worthwhile, which was the lowest; insurance company employees were 93.1% in agreement, which was the highest.

Petroleum respondents were 56.6% in accord that a company should provide a program, which was the lowest; government respondents were 77.8% in accord, which was the highest.

The comparison with improvement of company morale revealed manufacturing company employees were 63.2% agreed, which was the lowest; government employees were 76.1% agreed, which was the highest.

The comparison with the desirability of a fitness facility being contained within an office building showed manufacturing company employees were 63.7% in favour, which was the lowest; insurance and private company employees were both 80.5% in favour, which was the highest.

It can be concluded from these results that the type of company will have a bearing on the extent to which the concepts of activity facilities and programs are accepted. However, there still was a good enough percentage of respondents in agreement with the concepts to allow investigation of the feasibility to proceed.

Attitudes of Office and Executive Personnel

The following interesting results related to attitudes showed that: office personnel were 87.6% agreed that an activity program

was worthwhile and executives were 85.6% agreed. Office personnel were 66.3% in favour of a company providing a program while executives were only 58.1% in favour. Office personnel were 69.1% in agreement that an activity program would improve morale; executives were 66.9% in agreement. Office personnel were 77.4% in favour of a company having a facility contained within their building; executives were 69.8% in favour.

It can be concluded from these results that generally, office personnel and executives are in agreement with the concepts of activity facilities and programs. Most implementation of these concepts occurs with the executives first and these results indicated that Canadian corporate executives would be receptive to further studies.

Company Size

Respondents from company size one (0-200) were 86.4% in agreement that an activity program was worthwhile; company size two (201-800) respondents were 85.2% in agreement; company size three (801 and over) respondents were 88.6% in agreement.

Respondents from company size one were 66.8% in favour of a company providing a program while company size two respondents were 58.9% in favour and company size three respondents were 67.4% in favour.

Respondents from company size one were 71.7% in agreement that a program would improve morale; both company size two and three respondents were 67.2% in agreement.

Respondents from company size one were 79.1% in favour of a facility being contained within a company's office building; those from

company size two were 75.9% in favour and those from company size three were 71.9% in favour.

It was concluded from these results that company size does not play a great determining role in the acceptance of activity facility and program concepts. These results would allow management of companies to seriously consider the advantages and disadvantages of activity facilities and programs.

Comparisons of Male and Female Attitudes

Responses received from males and females who participated in the study revealed quite similar agreements on a number of items. The results showed that: male respondents were 85.4% in agreement that activity programs are worthwhile; female respondents were 88.8% in agreement. Male respondents were 61.0% in favour of a company providing a program; female respondents were 68.4% in favour. Male respondents were 66.8% agreed that an activity program would improve company morale; female respondents were 70.7% agreed. Male respondents were 72.7% in favour of a fitness facility being contained within a company's office building; female respondents were 70.1% in favour.

It was concluded from these results that sex was not a varying factor in the acceptability of the concepts of activity facilities and programs to any great extent. Thus management should strive to plan activity programs for both males and females when considering implementation.

Comparison of Age Groups

Respondents for age group four (46 and over) were 79.2% in agreement that an activity program was worthwhile, which was the lowest; age group one (15-25) respondents were 92.4% in agreement, which was the highest.

Respondents for age group four were 52.9% in favour of a company providing a program, which was the lowest; age group one respondents were 72.9% in favour, which was the highest.

Respondents for age group four were 60.4% agreed that an activity program would improve company morale, which was the lowest; age group one respondents were 73.4% agreed, which was the highest.

Respondents for age group four were 65.5% in favour of a fitness facility being contained within the company's office building, which was the lowest; age group one respondents were 81.0% in favour, which was the highest.

It was concluded from these results that acceptability of the concepts of activity facilities and programs decreased as age increased. However, these results showed quite clearly that employees of all ages were very interested in the concepts presented. Management must now realize that all age groups would have to be considered in the planning of facilities and programs.

Recommendations

Following are a number of recommendations that are based on the results of this study:

1. An attempt should be made to make Canadian corporate management fully aware of the benefits for both the company and its employees that would accrue through implementation of fitness facilities.
2. A complete cost analysis should be undertaken to provide Canadian corporate management with pertinent information regarding in-house facilities.
3. The Canadian government should immediately explore tax concessions for Canadian corporations which include fitness facilities in their office buildings.
4. An in-depth study of an American corporation possessing their own facilities for physical activity should be undertaken in order to provide guidelines for Canadian corporate management.
5. An investigation into other avenues of corporate physical recreation should be undertaken which might include an analysis of company paid memberships in health clubs.

APPENDIX A

FACULTY OF PHYSICAL EDUCATION
THE UNIVERSITY OF ALBERTA
EDMONTON 7, ALBERTA, CANADA

OFFICE OF THE DEAN

The Faculty of Physical Education at the University of Alberta is extremely interested in more fully understanding the attitudes of corporate employees across Canada toward physical activity.

In this regard, a Canadian study has been undertaken to determine the feasibility of a recreation and fitness program for employees operated within a facility of an office complex. Funds have been allocated for a questionnaire survey of employees in Vancouver, Calgary, Winnipeg, Montreal, Ottawa and Toronto.

Your company has been selected as a sample area and has been most cooperative in granting permission and making the necessary arrangements to have this questionnaire circulated as a public service. Your cooperation is now requested in completing the questionnaire. Neither the company nor employees will be identified in the subsequent report.

It must be emphasized that this survey is concerned solely with employees attitudes towards the facility described in the questionnaire and does not imply any intention by the company to install such a facility.

Your understanding and cooperation in completing the questionnaire is greatly appreciated.

H. J. McLachlin

H.J. McLachlin, Ph.D.,
Associate Dean,
Faculty of Physical Education

ATTITUDE QUESTIONNAIRE

The objective of this questionnaire is to determine your attitude (1) toward employee participation in a supervised physical activity program for a company, and (2) toward a recreational facility being contained within an office structure.

Please check off (✓) or fill in the appropriate blank in the following questions.

(1) Sex: M _____ F _____

(2) Age at last birthday: __ __

(3) Marital status:

_____ Single _____ Married _____ Separated _____ Divorced _____ Widowed

(4) Do you have any children? YES _____ NO _____

(5) How much of your work do you think of as routine?

_____ Most _____ Quite a lot _____ Some _____ A little _____ Almost none

(6) When you begin a working week, how much of what you will actually do during the week can you foresee?

_____ Most _____ Quite a lot _____ Some _____ A little _____ Almost none

(7) How much of the content of the job you are now in has changed in the past year?

_____ Most _____ Quite a lot _____ Some _____ A little _____ Almost none

(8) How often does something come up in your work which necessitates acquiring fresh knowledge or new skills?

_____ Most _____ Quite a lot _____ Some _____ A little _____ Almost none

(9) On the whole, how satisfied are you with the company where you work?

_____ Completely Satisfied _____ Well Satisfied _____ Neither Satisfied Nor Dissatisfied _____ A little Dissatisfied _____ Very Dissatisfied

(10) How satisfied are you with your present salary?

_____ Completely Satisfied _____ Well Satisfied _____ Neither Satisfied Nor Dissatisfied _____ A little Dissatisfied _____ Very Dissatisfied

(11) How satisfied are you with the kind of work (or task) you do?

_____ Completely Satisfied _____ Well Satisfied _____ Neither Satisfied Nor Dissatisfied _____ A little Dissatisfied _____ Very Dissatisfied

(12) How satisfied are you with the progress you have made in this company?

Completely Satisfied	Well Satisfied	Neither Satisfied Nor Dissatisfied	A little Dissatisfied	Very Dissatisfied

(13) How satisfied are you with your present supervisors?

Completely Satisfied	Well Satisfied	Neither Satisfied Nor Dissatisfied	A little Dissatisfied	Very Dissatisfied

(14) Are you presently involved in some form of physical activity outside the company?

Yes	No

(15) An organized physical activity program, in general, is worthwhile.

Strongly Agree	Agree	No Opinion	Opposed	Strongly Opposed

(16) A company should provide some form of a physical activity program.

Strongly Agree	Agree	No Opinion	Opposed	Strongly Opposed

(17) A physical recreation facility for company employees would improve company morale.

Strongly Agree	Agree	No Opinion	Opposed	Strongly Opposed

(18) The participation of your family (if you had or have one) in a company activity program would be worthwhile.

Strongly Agree	Agree	No Opinion	Opposed	Strongly Opposed

(19) A non-compulsory physical activity program operated as an employee benefit is desirable.

Strongly Agree	Agree	No Opinion	Opposed	Strongly Opposed

(20) Would you participate in such a program?

Yes	No	Undecided

(21) A recreation facility being contained within an office structure so it would not be necessary for you to leave the building in order to participate in an activity program would be desirable.

Strongly Agree	Agree	No Opinion	Opposed	Strongly Opposed

(22) Would you be willing to pay a nominal fee for the use of this facility?

_____ Yes _____ No

(23) If yes, how much per month would you be willing to pay?

_____ 0-$.50 _____ $.51-1.00 _____ $1.01-1.50 _____ $1.51-2.00 _____ $2.01-2.50

(24) If a facility for physical activity was made available to you, at what period of the day would you prefer to make use of it? Number from 1 to 3 in order of preference for the times listed below, (1-most preferred; 3-least preferred).

(29) 8 - 9 a.m. _____
(30) 9 - 10 a.m. _____
(31) 10 - 11 a.m. _____
(32) 11 - 12 a.m. _____
(33) 12 - 1 p.m. _____
(34) 1 - 2 p.m. _____
(35) 2 - 3 p.m. _____
(36) 3 - 4 p.m. _____
(37) 4 - 5 p.m. _____

(25) Would you use the facility during times other than office hours?

_____ Yes _____ No _____ Undecided

(26) If yes, when would you use the facility? Check only one blank.

(1) Before work _____
(2) Lunch time _____
(3) After work _____
(4) Evenings _____
(5) Saturday _____
(6) Sunday _____

(27) On what day(s) of the week would you prefer to use this facility? You may check more than one day.

_____ Mon. (Col. 40) _____ Tues. (Col. 41) _____ Wed. (Col. 42) _____ Thurs. (Col. 43) _____ Fri. (Col. 44)

(28) What types of activities would you like to see incorporated in an activity program? Number from 1 to 5 in order of preference for the activities listed below, (1-most preferred; 5-least preferred).

(A) GYMNASIUM

45. Badminton _____
46. Basketball _____
47. Floor Hockey _____
48. Jogging _____
49. Judo _____
50. Karate _____
51. Keep fit Exercise class _____
52. Volleyball _____
53. Weightlifting _____

(B) POOL

54. Swimming _____

(C) COURTS

55. Handball _____
56. Paddleball _____
57. Squash _____

(29) Which facility would you prefer if only one could be provided?

(A) Gymnasium _____ (B) Pool _____ (C) Courts _____

(30) If, in the above classification, a gymnasium was provided, but either a pool or courts or both could not be provided, would you still be interested in participating in the program?

Yes _____ No _____ Undecided _____

(31) Would you prefer a sauna (dry heat) or a steam room facility for use at the end of your activity period (Showers are included with both types)?

Sauna _____ Steam _____

(32) In your opinion, would one (1) hour of your working day devoted to physical activity result in a decrease in your previous daily production?

Yes _____ No _____ Undecided _____

(33) A compulsory physical activity program operated within a company facility means that the company would supply the employees with grooming aids, towels, and suitable gymnasium attire (everything except running shoes). One (1) hour of company time would be taken to allow you to participate in the program (without infringing on your lunch break). There would be no reduction in pay and no fee charged to you. The program would run 2 or 3 times a week.

A compulsory program would still allow you to select your favourite activities interchangeably. A supervisor would develop an individual program for you to follow for perhaps fifteen (15) minutes, then you would be free to take part in any other activity that was suitable for you.

(A) A compulsory physical activity program being run by a company is desirable.

Strongly Agree _____ Agree _____ No Opinion _____ Opposed _____ Strongly Opposed _____

(B) Would you willingly participate in such a program?

Yes _____ No _____ Undecided _____

(34) Please check (✓) the description which best fits your job and responsibilities.

(1) Office Personnel _____
(2) Department Manager _____
(3) Branch Manager _____
(4) Regional Manager _____
(5) High Company Executive _____

APPENDIX B

The following tables showed chi-square and probability values utilized for comparisons within each hypothesis. Acceptance of the hypotheses, when related to individual comparisons, occurred when chi-square values were small and probability values large. Rejection of the hypotheses occurred when chi-square values were large and probability values small. All correlations are significant at the .05 level.

TABLE XXVIII

ATTITUDES TOWARD A COMPULSORY PROGRAM

QUESTION(S)	COLUMN IDENTIFICATION CODE	x^2	D.F.	PROB.	DECISION
33(A)	Geographic Location (East-West)	4.990	4	0.288	Accept
33(A)	Marital Status	12.329	16	0.721	Accept
33(A)	Size of Company	12.918	8	0.115	Accept
33(A)	City	55.363	20	0.000	Reject
33(A)	Type of Company	49.246	20	0.000	Reject
33(A)	Age	29.467	12	0.003	Reject
33(A)	Executive/Office	8.065	4	0.089	Accept
33(A)	Job Satisfaction Index	12.367	8	0.136	Accept
33(A)	Sex	21.917	4	0.000	Reject
33(A)	Question 14 - Present Involvement with Activity	9.564	4	0.048	Reject
33(B)	Geographic Location (East-West)	0.231	2	0.890	Accept
33(B)	Marital Status	5.085	8	0.748	Accept
33(B)	Size of Company	6.558	4	0.161	Accept
33(B)	City	13.897	10	0.178	Accept
33(B)	Type of Company	32.766	10	0.000	Reject
33(B)	Age	45.419	6	0.000	Reject

... continued on 127

TABLE XXX

MONETARY SUPPORT

QUESTION(S)	COLUMN IDENTIFICATION CODE	x^2	D.F.	PROB.	DECISION
21	Geographic Location (East-West)	15.061	4	0.005	Reject
21	Marital Status	22.485	16	0.128	Accept
21	Size of Company	20.786	8	0.008	Reject
21	City	79.275	20	0.000	Reject
21	Type of Company	49.739	20	0.000	Reject
21	Age	47.800	12	0.000	Reject
21	Executive/Office	11.998	4	0.017	Reject
21	Job Satisfaction Index	9.146	8	0.330	Accept
21	Sex	18.123	4	0.001	Reject
21	Question 14 - Present Involvement with Activity	9.416	4	0.052	Accept
22	Geographic Location (East-West)	3.139	2	0.208	Accept
22	Marital Status	9.349	8	0.314	Accept
22	Size of Company	1.486	4	0.829	Accept
22	City	18.637	10	0.045	Reject
22	Type of Company	18.508	10	0.047	Reject
22	Age	27.218	6	0.000	Reject
22	Executive/Office	3.124	2	0.210	Accept
22	Job Satisfaction Index	11.116	4	0.025	Reject
22	Sex	6.161	2	0.046	Reject
22	Question 14 - Present Involvement with Activity	1.840	2	0.398	Accept
23	Geographic Location (East-West)	5.789	4	0.215	Accept
23	Marital Status	33.343	16	0.007	Reject
23	Size of Company	8.317	8	0.403	Accept
23	City	33.280	20	0.031	Reject
23	Type of Company	21.322	20	0.378	Accept

... continued on 129

QUESTION(S)	COLUMN IDENTIFICATION CODE	x^2	D.F.	PROB.	DECISION
23	Age	53.469	12	0.000	Reject
23	Executive/Office	89.016	4	0.000	Reject
23	Job Satisfaction Index	6.600	8	0.580	Accept
23	Sex	111.226	4	0.000	Reject
23	Question 14 - Present Involvement with Activity	20.925	4	0.000	Reject

Note: Information in the above table is related to hypothesis 3 (see page 60.

TABLE XXXI

DESIRE FOR FAMILY INVOLVEMENT

QUESTION(S)	COLUMN IDENTIFICATION CODE	x^2	D.F.	PROB.	DECISION
18	Geographic Location (East-West)	12.207	4	0.016	Reject
18	Marital Status	38.110	16	0.001	Reject
18	Children	34.917	8	0.000	Reject
18	Age	29.295	12	0.004	Reject
18	Executive/Office	20.792	4	0.000	Reject
18	Job Satisfaction Index	16.588	8	0.035	Reject
18	Sex	17.893	4	0.001	Reject
18	Question 14 - Present Involvement with Activity	3.389	4	0.495	Accept

Note: Information in the above table is related to hypothesis 4 (see page 62.

TABLE XXXII

JOB SATISFACTION RELATED TO INTEREST IN ACTIVITY PROGRAMS

COLUMN IDENTIFICATION CODE	QUESTION(S)	x^2	D.F.	PROB.	DECISION
Job Satisfaction Index	1	1.414	2	0.493	Accept
"	2	45.553	6	0.000	Reject
"	14	1.693	2	0.429	Accept
"	15	20.246	8	0.009	Reject
"	16	11.247	8	0.188	Accept
"	17	14.540	8	0.069	Accept
"	19	11.030	8	0.200	Accept
"	20	2.675	4	0.614	Accept
"	21	9.146	8	0.330	Accept
"	34	22.032	2	0.000	Reject

Note: Information in the above table is related to hypothesis 7 (see page 67.

TABLE XXXIII

PRESENT ACTIVITY INVOLVEMENT RELATED TO INTEREST IN ACTIVITY PROGRAMS

QUESTION	COLUMN IDENTIFICATION CODE	x^2	D.F.	PROB.	DECISION
14	Geographic Location (East-West)	3.644	1	0.056	Accept
14	Marital Status	6.265	4	0.180	Accept
14	Size of Company	5.380	2	0.068	Accept
14	City	9.427	5	0.093	Accept
14	Type of Company	6.247	5	0.283	Accept
14	Age	0.338	3	0.000	Reject
14	Executive/Office	15.516	1	0.000	Reject
14	Sex	36.599	1	0.000	Reject
14	Question 15 - Program Worthwhile	6.432	4	0.170	Accept

... continued on 131

QUESTION	COLUMN IDENTIFICATION CODE	x^2	D.F.	PROB.	DECISION
14	Question 16 - Company Provision	8.806	4	0.066	Accept
14	Question 17 - Improve Morale	11.312	4	0.023	Reject
14	Question 19 - Employee Benefit	8.497	4	0.075	Accept
14	Question 20 - Would Participate	22.642	2	0.000	Reject
14	Question 21 - Facility in Building	9.416	4	0.052	Accept
14	Question 22 - Pay a Fee	1.840	2	0.398	Accept
14	Question 23 - Amount per Month	20.925	4	0.000	Reject

Note: Information in the above table is related to hypothesis 8 (see page 69.

TABLE XXXIV

COMPANY INVOLVEMENT IN PROVIDING FOR PHYSICAL ACTIVITY PROGRAMS

QUESTION	COLUMN IDENTIFICATION CODE	x^2	D.F.	PROB.	DECISION
16	Geographic Location (East-West)	12.604	4	0.013	Reject
16	Marital Status	14.515	16	0.560	Accept
16	Size of Company	26.366	8	0.000	Reject
16	City	76.192	20	0.000	Reject
16	Type of Company	64.611	20	0.000	Reject
16	Age	50.224	12	0.000	Reject
16	Executive/Office	20.074	4	0.000	Reject
16	Sex	14.435	4	0.006	Reject

Note: Information in the above table is related to hypothesis 9 (see page 73.

TABLE XXXV

BELIEF THAT COMPANY ACTIVITY PROGRAMS WOULD CONTRIBUTE TO IMPROVED MORALE

QUESTION	COLUMN IDENTIFICATION CODE	x^2	D.F.	PROB.	DECISION
17	Geographic Location (East-West)	12.935	4	0.012	Reject
17	Marital Status	20.146	16	0.214	Accept
17	Size of Company	23.114	8	0.003	Reject
17	City	46.133	20	0.000	Reject
17	Type of Company	33.564	20	0.029	Reject
17	Age	33.772	12	0.001	Reject
17	Executive/Office	18.622	4	0.000	Reject
17	Sex	12.923	4	0.012	Reject

Note: Information in the above table is related to hypothesis 10 (see page 75.

TABLE XXXVI

TYPE OF FACILITY PREFERRED

QUESTION	COLUMN IDENTIFICATION CODE	x^2	D.F.	PROB.	DECISION
29	Geographic Location (East-West)	0.324	2	0.850	Accept
29	Marital Status	7.147	8	0.521	Accept
29	Size of Company	8.636	4	0.070	Accept
29	City	16.867	10	0.077	Accept
29	Type of Company	14.790	10	0.140	Accept
29	Age	20.196	6	0.003	Reject
29	Executive/Office	10.064	2	0.007	Reject
29	Sex	11.463	2	0.003	Reject

Note: Information in the above table is related to hypothesis 11 (see page 77.

TABLE XXXVII

PARTICIPATION IF ONLY A GYMNASIUM PROVIDED

QUESTION	COLUMN IDENTIFICATION CODE	x^2	D.F.	PROB.	DECISION
30	Geographic Location (East-West)	10.968	2	0.004	Reject
30	Marital Status	1.868	8	0.985	Accept
30	Size of Company	4.929	4	0.295	Accept
30	City	17.172	10	0.070	Accept
30	Type of Company	11.788	10	0.300	Accept
30	Age	47.539	6	0.000	Reject
30	Executive/Office	4.352	2	0.114	Accept
30	Sex	6.121	2	0.047	Reject

Note: Information in the above table is related to hypothesis 12 (see page 79.

TABLE XXXVIII

EFFECT ON WORK PRODUCTION BY PHYSICAL ACTIVITY TAKEN DURING OFFICE HOURS

QUESTION	COLUMN IDENTIFICATION CODE	x^2	D.F.	PROB.	DECISION
32	Geographic Location (East-West)	2.057	2	0.357	Accept
32	Size of Company	12.233	4	0.016	Reject
32	City	18.930	10	0.041	Reject
32	Type of Company	16.917	10	0.076	Accept
32	Age	32.257	6	0.000	Reject
32	Executive/Office	6.910	2	0.032	Reject
32	Sex	8.574	2	0.014	Reject

Note: Information in the above table is related to hypothesis 13 (see page 81.

TABLE XXXIX

GEOGRAPHIC LOCATION

COLUMN IDENTIFICATION CODE	QUESTIONS	x^2	D.F.	PROB.	DECISION
Geographic Location (East-West)	15	13.424	4	0.009	Reject
" "	16	12.604	4	0.013	Reject
" "	17	12.935	4	0.012	Reject
" "	18	12.207	4	0.016	Reject
" "	19	12.743	4	0.013	Reject
" "	20	1.204	2	0.548	Accept
" "	21	15.061	4	0.005	Reject
" "	22	3.139	2	0.208	Accept
" "	23	5.789	4	0.215	Accept

Note: Information in the above table is related to hypothesis 14 (see page 83.

TABLE XL

CITY OF RESIDENCE

COLUMN IDENTIFICATION CODE	QUESTIONS	x^2	D.F.	PROB.	DECISION
City	15	46.230	20	0.001	Reject
"	16	76.192	20	0.000	Reject
"	17	46.133	20	0.001	Reject
"	19	66.203	20	0.000	Reject
"	20	22.480	10	0.013	Reject
"	21	79.275	20	0.000	Reject
"	22	18.637	10	0.045	Reject
"	23	33.280	20	0.031	Reject

Note: Information in the above table is related to hypothesis 15 (see page 85.

TABLE XLI

TYPE OF COMPANY

COLUMN IDENTIFICATION CODE	QUESTIONS	x^2	D.F.	PROB.	DECISION
Type of Company	15	51.861	20	0.000	Reject
"	16	64.611	20	0.000	Reject
"	17	33.564	20	0.029	Reject
"	19	66.610	20	0.000	Reject
"	20	7.677	10	0.660	Accept
"	21	49.739	20	0.000	Reject
"	22	18.508	10	0.047	Reject
"	23	21.322	20	0.380	Accept

Note: Information in the above table is related to hypothesis 16 (see page 88.

TABLE XLII

OPINIONS ON PHYSICAL ACTIVITY, MORALE, PARTICIPATION AND COSTS AS VIEWED BY ALL RESPONDENTS

COLUMN IDENTIFICATION CODE	QUESTIONS	x^2	D.F.	PROB.	DECISION
Executive/Office	15	3.344	4	0.502	Accept
"	16	20.074	4	0.000	Reject
"	17	18.622	4	0.000	Reject
"	19	14.517	4	0.006	Reject
"	20	14.697	2	0.001	Reject
"	21	11.998	4	0.017	Reject
"	22	3.124	2	0.210	Accept
"	23	89.016	4	0.000	Reject

Note: Information in the above table is related to hypothesis 17 (see page 90.

TABLE XLIII

SIZE OF COMPANY

COLUMN IDENTIFICATION CODE	QUESTIONS	x^2	D.F.	PROB.	DECISION
Size of Company	15	16.232	8	0.039	Reject
"	16	26.366	8	0.001	Reject
"	17	23.114	8	0.003	Reject
"	19	22.798	8	0.004	Reject
"	20	7.540	4	0.110	Accept
"	21	20.786	8	0.008	Reject
"	22	1.486	4	0.830	Accept
"	23	8.317	8	0.403	Accept

Note: Information in the above table is related to hypothesis 18 (see page 92.

TABLE XLIV

SEX

COLUMN IDENTIFICATION CODE	QUESTIONS	x^2	D.F.	PROB.	DECISION
Sex	15	12.072	4	0.017	Reject
"	16	14.435	4	0.006	Reject
"	17	12.923	4	0.012	Reject
"	18	17.893	4	0.001	Reject
"	19	16.696	4	0.002	Reject
"	20	10.594	2	0.005	Reject
"	21	18.123	4	0.001	Reject
"	22	6.161	2	0.046	Reject
"	23	111.226	4	0.000	Reject

Note: Information in the above table is related to hypothesis 19 (see page 93.

TABLE XLV

AGE

COLUMN IDENTIFICATION CODE	QUESTIONS	x^2	D.F.	PROB.	DECISION
Age	15	40.984	12	0.000	Reject
"	16	50.224	12	0.000	Reject
"	17	33.772	12	0.000	Reject
"	18	29.295	12	0.004	Reject
"	19	44.178	12	0.000	Reject
"	20	45.263	6	0.000	Reject
"	21	47.800	12	0.000	Reject
"	22	27.218	6	0.000	Reject
"	23	53.469	12	0.000	Reject

Note: Information in the above table is related to hypothesis 20 (see page 96.

APPENDIX C

INTERVIEW

1. Are your employees unionized?

2. Are "fringe benefits" an integral part of employee bargaining in your company?

3. What is included in your fringe benefit package?

4. Do the employees have any activity programs sponsored by the company? If yes, what are they?

5. Would you say that the same people tend to take part in a majority of the athletic programs?

6. Do you feel athletic programs are beneficial or detrimental?

7. Does the company have any recreational facilities? If so, what are they?

8. Does the company plan any functions that the employees' families are involved in?

9. Do you feel that this develops a greater sense of employee loyalty to the company?

10. Is your company aware of the increasing evidence that physical activity may decrease many problems such as cardiovascular disease, absenteeism, boredom, fatigue and stress associated with the job?

11. Have these areas tended to cause problems for your company? If yes, in what way?

12. Does your company feel that the varied concepts of job satisfaction and high morale are important for the efficiency of the company? If so, in what way?

13. Do you feel that job satisfaction and morale would increase if a physical activity facility and programs were introduced for your employees and executives?

14. Many companies in the United States, indeed around the world, offer physical activity programs and facilities for their employees as a part of their fringe benefit program. These companies feel the program is extremely beneficial to their operation.

Could you make any suggestions as to why your company, or any Canadian company has not implemented facilities and programs such as these?

15. Do you think your company would consider building physical activity facilities if the employees demonstrated that they would contribute financially to the support of such a program?

16. What feelings do you have regarding the negative aspects of a company operating facilities and programs for their employees?

17. If the employees demonstrated a desire for this type of program, would you push for it?

18. Does the company have a medical supervisor?

19. Is he located in your building?

20. What are his responsibilities?

21. Are your executives required to have medical check-ups periodically?

22. Compulsory program?